

MACLEAN'S
MAGAZINE

Four Immense Engineering Works



Millions for Railroad Improvements



The Hon. "Sam" Blake



Digging Ditches in Lake Superior



The Women of the Magdalens

JULY

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MACLEAN'S MAGAZINE

Vol. XXII

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BUILDING THE PANAMA CANAL

A View taken on top of guide wall showing method of construction.

Photo. Chalmers & Osburn of

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No 3

Four Big Engineering Works and What They Mean to Canada

By

James Grant

THE Dominion of Canada has been sitting placidly beside the United States for years, watching the American Republic dig a great ditch on the side remote from Canada. Canada's interest in the ditch has been more or less languid. She has observed that the building of the ditch has cost, and will cost, many millions. She has been told, and no doubt believes, that if ever the Americans finish it—and apparently they intend to do so—it will "revolutionize" the shipping interests of the world and distort the ancient trade routes beyond recognition. But the word "revolutionize" has been used by inventors, promoters, and social reformers and other visionaries, so very often, that it is thread-bare and carries less weight than it should in the case of the Panama Canal. Mildly interested, Canada has been watching the proscription of a piece of engineering work which affects no nation, except the United States, more radically than herself.

The completion and successful operation of the Panama Canal is one of four things—four pieces of engineering—that

shall mark a definite epoch in the history of the nation. The remaining three out of the four are: the completion of the Grand Trunk Pacific and the Canadian Northern Railways through the Rocky Mountains; the construction and operation of the Hudson's Bay Railway; and the Georgian Bay Canal. It is not a matter of greater shipping facilities and therefore greater trade possibilities. It is not a mere case of giving Canadian producers advantages in the export market. But it is national sentiment—Canadian Nationalism, which stands to be affected when these engineering works are completed.

It is, at present—say some people—the interdependencies of the different parts of Canada which, in conjunction with a common interest in the British Crown, hold Canada together. It is said that some of the provinces, such as those in the East, sometimes think that they are handicapped by their relation with the other provinces, and yet that, thanks to British sentiment, where there is not an actual benefit to be derived from the connection, still the Confederation holds. Students

point out that, outside aggression has not yet been serious enough to compress the Provinces and make them feel their brotherhood; that foreign relations have played, as yet, no part in making modern Canadians feel that all their interests are one. As for foreign ambitions, such as dreams of conquest or great alliances, all Canadians admit that Canada has not reached that stage and is content for an ally in the Mother Country.

A statesman once remarked of Canada: "Everything that goes to increase the interdependence of the provinces goes to knit the nation together; and that vice versa, things which go to make the various parts independent, tend toward—though they need not cause—disintegration." He may have been justified. Since the beginning of Canadian history, the eastern coast, including the St. Lawrence River, has been the national base. It was the base from which explorations were carried on. It was the base from which most of the fur trading and the Indian wars were carried on. It is now the chief means of access and egress between the whole Dominion and Europe. The tide of trade which flows from Europe to America runs up the estuary of the St. Lawrence and sends its farthest ripple to the foot of the Rocky Mountains. With the cutting of the railways through these mountains this tide has gone even further, clear into British Columbia itself, and down to the edge of the Pacific.

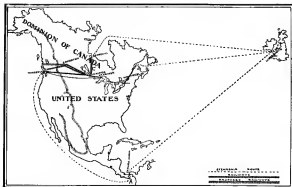
The result of this, has been a one-sided Nation. We are young and it is therefore no shame to us as yet; but who can deny that Canada is one-sided? Montreal and Toronto control the trade between the St. Lawrence and the western edge of Alberta. Eastern manufacturers ship even into British Columbia. Eastern commercial travellers carry their samples to Victoria, and in many cases the strongest competition they meet with there is from the Americans, not from British Columbians. Where is the headquarters of the Canadian Manufacturers' Association? In Toronto. Where is the seat of Federal Government? In Ottawa. In fact everything is East, and the West is—and this is not meant offensively—merely tied to the East by the railways, and by the necessity for getting its imports and sending its exports out via the St. Lawrence.

A condition such as this has not been without its natural effect upon Canadian sentiment. The West clamors for a railway to Hudson's Bay, so that it may be more independent of the great eastern roads. British Columbia chafes at her transportation problems. Each of the provinces is wrapped in its own troubles. Provincialism is rampant and the men who look for a Canadian National spirit, find only a mild interest in common, in things British, not Canadian.

It is in this connection therefore that the Panama Canal, the Georgian Bay Canal, the Hudson Bay Railway and the opening of three railways through the Rocky Mountains affects Canada.

The Panama Canal, up to September 30th last year, had cost the United States a total of \$103,005,169, not including the cost of civil government and sanitary provisions. So much is California expecting as a result of the opening of the canal that that State has appropriated \$47,000,000 to finance and prepare for the Panama-Pacific International Exposition in 1915. Seventeen million five hundred thousand dollars is to be spent, out of that sum, for the exhibition alone. Eighteen million is to be spent on the improvement of the highways of the State, and eleven million five hundred thousand dollars is to be spent in improving the harbors of San Francisco and San Diego, in anticipation of the immense increase in trade which the opening of the canal in 1915 will mean. This is what one of the American States on the Pacific Coast expects from the Panama Canal, and it is not unfair to state that British Columbia may look forward to a proportionate benefit.

If to-day the heavy mountain freight rates were removed from goods coming out from British Columbia that province would still be handicapped in her efforts to export goods into the British market via Eastern Canadian ports. But when the Panama Canal is open, not only will she be in closer touch with Liverpool, but she will be less dependent upon Eastern Canada for her imported supplies. But beyond even these two points, this most westerly of the Canadian Provinces will then be able to use to still greater advantage her present resources. With increased trade facilities via the Panama Canal,



FOUR EPOCH-MARKING ENGINEERING UNDERTAKINGS

A. The Panama Canal, opening a direct and quick shorter sea route from Great Britain to the Pacific Coast of the Dominion and thereby reducing freight traffic across Canada. B. Two new Rail Routes, the G.T.P. and C.N.R., through the Rockies, giving greatly increased opportunities for the coast to sell goods to the prairie provinces. C. The Hudson Bay Railway, affording a new outlet for the grain crops of the West and giving direct access to these markets for the British manufacturer. D. The Georgian Bay Ship Canal, creating a new and short trade channel from Port Arthur to the Sea.

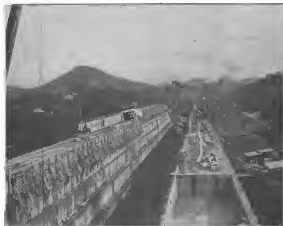
with an easier grade through the Rocky mountains, British Columbia may then be in a position to enter the market of the western plains and compete with the eastern Canadian firms and the Americans who now monopolize that market. In short, British Columbia, with easier relations to European markets and with easier access to middle Canadian consumers, stands to become a new Canadian centre, an active agent in the new internal economy of Canada.

This, then, is one new rival established for the eastern Canadian ports, and a rival too, that is without the disadvantage of winter problems such as has Montreal.

The Hudson's Bay Railway means another. It promises only a few months' service each year and yet that service may be sufficient to make the western plains more independent of either British Columbia or Eastern Canadian ports. If the boundaries of Manitoba could only be extended sufficiently northward, and a little west, Manitoba might call herself a Mari-

time province and boast the Port of Nelson or of Churchill, whichever is chosen by the Government as the terminal of the Hudson's Bay Railway.

The vessels which leave Hudson's Bay with wheat shall not, of course, return empty. There will be need for more than grain elevators at the Hudson Bay port, wherever it may be. There will have to be warehouses with correspondents or, more probably, head offices in Winnipeg or Prince Albert. There will be a chance for Winnipeg to become interested in the importing trade. The things which formerly came by Montreal may then come in summer to Winnipeg, so that still more shall be added to the already enormous potentialities of that city. Winnipeg, it is true, has its labor problem and it is also true that it is more skilled at present in handling wheat than imported English dress goods. But the labor problem will solve itself in Winnipeg and the merchants of the city will not be slow to pick up the new trade.



THE PROGRESS OF THE GUIDE WALL AT PEDRO MIGUEL ON THE ROUTE OF THE PANAMA CANAL.

Photo: Underwood & Underwood

Those, then, are three out of the four factors. The fourth, is the Georgian Bay Canal. Everyone aids and abets the Government in promising to build it. The Conservatives, of course, make certain objections or conditions which are, however, purely political. A few ship-owners doing a profitable business on the great lakes between Montreal and Fort William, are wearing long faces at the prospect of having to compete with all sorts of foreign tramps which may make use of the Georgian Bay Canal to sail to the head of the lakes for cargo. But the rest of the country applauds.

The Georgian Bay Canal benefits three parties and may do temporary damage to the interest of two others. The western grain shipper, and the port of Montreal stand to be benefited by the opening of this more direct route from Sault Ste. Marie across Northern Ontario to the Ottawa River and Mon-

tréal. The line of the wilderness north of the proposed route of the Canal will probably be moved farther north as the germ of civilization radiates from the banks of the canal. Certainly a number of the large lumber interests may go north. Already it is rumored that the Booth mills at Ottawa will move north when the Canal is in operation.

That part of old Ontario which lies along the lower lakes may not profit by the canal. The usefulness of Lake Ontario, and Lake Erie as part of the Montreal-Fort William route, will then be reduced. The vessels plying in the lakes may be forced into more local, port to port business, if, indeed, they do any serious trade at all on the Canadian side. In the meantime, however, the American grain vessels which now ply to Buffalo and send their cargoes down to New York, may find themselves in less demand, and the most exporters of Chicago may be compelled to



A VIEW IN THE PANAMA CANAL PRISM BETWEEN COLUMBIA AND EMPIRE

Photo: Underwood & Underwood

ship by the shorter Canadian route than by the old lake lines.

Thus may be considered the four engineering feats which are scheduled to be completed on the continent of North America within the next ten or twelve years. So far as Canada is concerned, we submit two direct effects: the development of British Columbia as a manufacturing and shipping coast, and the development of Winnipeg as a centre of distribution of goods imported by way of the Hudson's Bay route.

These are immediate and specific results. There are others. For instance, the opening of two new trade routes and two new centres of distribution, with the attendant increase in transportation facilities, should tend to make imports cheaper and exports more profitable. It should enhance living conditions in Canada and improve the position of Canadian goods in competing in foreign markets. As for the ill effects which competitive ports

might have upon Montreal or the other eastern ports, these will never be noticed in the increased volume of traffic which is likely to come by the time the new conditions are completed.

But how shall this affect Canada as a National entity? With interdependence reduced by the opening of new ports, does it not follow that the interest of one part of the country in the other, may wane?

The answers to such questions may be open to debate. There must always be remembered the tie of British sentiment which is at the bottom of the whole structure of the Dominion. And as against those who might say that Canada stands in danger of disintegration, it could be pointed out that there is greater danger of disintegration where there is jealousy, where one province, feeling its own strength, chafes at its dependence upon another. The new day for Canada means a day of greater freedom, easier access to

the outside world, fewer internal prejudices and mistrustings. Montreal firms, if they have not already done so, will be compelled to maintain branches in Vancouver and Winnipeg. There shall result the inter-weaving of commercial and sentimental relations. And above all, with increased relations with the outer world, with easier means of export and import,

the foreign nations shall be ranged as objects for the commercial ambition of all parts of the Dominion. No one part shall feel chafed at any disability to compete with the other parts, and in a common pride, with a common ambition toward the rest of the world, the Canadian National spirit shall, perhaps, wake to new times.



NIGHT

I saw the legions of the day retreat unto the West,
With flaming banners all unfurled, proclaiming victory;
The standard bearers of the sun put out afar to sea,
Line after line of silver ships that sought the port of rest.

So passed the legions of the day as birds that takeeth flight,
Hushed was the hum of life, forgotten grief;
Faint, fainter still, the curfew rings, the rustle of a leaf,
And as a grey nun's noiseless step, passed the night.

—Spencer Freese.

The Tribulations of Trinity Tim

By

George Rothwell Brown

"SKEETS," I said, after the customary formalities attending the renewal of a friendship had been observed—"Skeets, how's Trinity Tim? I'm 'most afraid to ask. He hasn't gone the red-eye route and cashed in?"

I was back in the Panhandle cow country for the first time in ten years. Naturally, the first thing I did when I fell off the stage was to round the boys up and do the expected thing at the bar; and the second thing was to make some inquiries about those who weren't there. Some of the old crowd were hanging around the steer porch, just as in the old days: the same old sheep-hide and leather chaps; the same old straw-paper cigarettes, the same old set-back game, and the same old grimy deck. They complained bitterly of the encroachments of civilization.

"Darn me!" said Skeets Shorter, twisting a fresh cigarette, "it's getting so plumb crowded a honest hombre can't breathe. I'd bet a two-year-old steer against a horse blanket that you couldn't ride fifty miles from here nowhere without gettin' bumped off by a wire fence. Over in Deaf Smith, now, I'm a Greaser if they ain't holdin' meetin's and celebratin' like — just because the derned county's increased two hundred and forty-six per cent! Braggin' about the population, by —! Why, I reckon half this outfit sleeps in beds now o' nights, and don't lose no standin' by it, neither.

"As for Trinity Tim, no, he ain't drunk hisself into no early grave. On the contrary, so to speak, he's married."

Skeets had expected me to be surprised, and I was. He waited, for the astonishment to sink in; then he said:

"I should ejaculate not! Yep, Tim's spliced, and wears his boots inside o' his pants every day in the week, o'clockin' Sunday. When was this here disaster pulled off? It must have been a couple of years ago. There's a kid out to Tim's ranch now. It was right after the spring round-up, comin' three year. Tim was down to Langtry, gettin' over a lickerin', when what should come but by one of them theatrical trains, full o' these here actor-men, and females, too. They'd been givin' of a performance up to Peco, and was travellin' in style fur San Antonio, when along comes a freight and humps her off the rails. Engine and all, clean off. I tell you there was some excitement — come!

"Tim was right there and seen it. He rode up easy-like and watched, when all of a sudden one of the winders ris up right where Tim's cayuse was smellin' the ear over to see what it was like, and Tim looked di-rect into the eyes of a bang-up, regular angel-face. Tim said alongside o' her he'd never seed nobody who was as good as a hustled flush, but I reckon that was goin' some strong, 'cause there was Greaser Kate and Madge—you knowed Madge, down at the Three Jacks? She's passed 'em in, now—fell off the dance-hall gallery a-walkin' one night. Well, them two was some good, I might allow, and plumb lovin' to Tim, too. But alongside o' this'n, he said, they warn't as good as a lame yearlin' in a stampede.

"It was about first mornin' drink time, and her hair was all mussed up jest beautiful to see, and there she was in her hunk all fluffy and white, and her pink arms showin' through her what-you-may-call-it,

and so, naturally, Tim swallowed his to-becker. He was roped, throwed, and tied, plumb, and he knowed it. There's one thing about Tim, if I do have to say it myself: he ain't never laid down to no two-legged gringo yet, but when he seed this here squaw lookin' up at him with them baby-blue beads o' her'n he jest throwed up both hands.

"Dern me, she was as nervous as a Mexican ant on a hot rock, and when Tim told her about the wrack she come right on through the window, and lit into his arms, and him lookin' so silly as a yellow pup that'd cornered a bobcat. He rode her over to the store porch, and wrapped her in a blanket, and give her a dram out o' his bottle, and rolled her a cigarette, like she asked him to, and then he camped right there by her, and wouldn't budge. In my opinion—you kin take it fur what it's worth—if anybody'd been dyin' on them cars, they might 'a' died and he'd 'a' 'em, fur all Tim'd cared. He wouldn't 'a' left the squaw, not for an earthquake. He fetched her outta from the bank, and after she'd gone into a little corner behind a bar'l, with Tim standing guard with a gun in each hand to hold off the crowd, and had dressed herself, and emerged all fixed up fit to start a fight, he hung around like a Indian at a camp kitchen, and he was that tongue-tied he couldn't tell his name.

"She told him her'n though, and by and by she got out a passel of scraps from noos-papers and things, and read him all about herself. And say, she was one of them sure 'nuff actresses. She showed Tim a picture o' herself all dressed up something scandalous, not kivered up much, you know, jest plain legs, and carrying a lance with a rag on the end of it. She said her name was Millie Miller, and that she made four hundred dollars a week when she was on Broadway, and only come out south-west fur her health.

"Tim allowed how he made forty dollars a month, and not Mex, nuther, ridin' fences fur old man Peppergill, but that they could live mighty well on that, his own board bein' included, and she not eatin' much, and he wanted her to marry him right off, but she was that contrary she wouldn't do it. I've knowed a heap o' women, in my time, and there ain't no difference in 'em. Let 'em know you

want 'em to do a thing, and that's the very thing they'll be derned if they'll do. There ain't but one way to do with 'em, in my judgment—you kin take it, fur what it's worth—rope 'em, and take 'em along! This here one bluffed Tim the whole day, and said she'd think about it, and got him 'most loco. Then Tim barnst up the trail to Yellow Post, and brought a parson back, and killed two horses doing it, but when he blowed in he found they'd fixed up the wrack and the whole bunch was gone. The whole bloody outfit had vanooched, incolodid! her.

"She left him her picture, and a letter invitin' him to come to Noo York, and Tim carried it around with him till it 'most wore out.

"Tim didn't show up at the X-X fur two months. We were gettin' up a collection to buy a monument down to Albuquerque and have somethin' appropriate scratched on it, when one day he come limpin' back. The boss put him to work again, but we all seed Tim warn't himself no more. He was that thin he cut a saddle every time he throwed a leg over a bronc's back, and his eyes had dropped down inside his head. From bein' one of the pertest boys in the whole outfit, always dressin' himself up and keepin' his hair greased as slick as a wet gut, he got so he warn't no more than a shadder, and didn't have no more style to him than a grisly h'r. He polished up a sardine-can with sand till it got shiny, and kep' her picture in that, to keep the edges from gettin' frayed out, and wore it inside his shirt, and the blamed thing kep' him that scratched and cut up till you'd think he'd been fightin' a mountain lion.

"He warn't much good, after that, but about every two months would draw his wages and hit the trail for El Paso, and git drunk, and try to bust the fare bank in the Silver King with them eighty dollars.

"You kin make me jump with a .22 if one night he didn't do it! He ran them two months' pay up to three thousand, got himself a little leather pouch fur his clothes, shovled the coin in, and bought himself a ticket to Fort Worth.

"O' course he didn't care none about Fort Worth. Tim hadn't been on no train o' cars up to that time. He come out

to Texas in a prairie schooner with his pap when he was an infant, before the S.P. went through, and when he started out for Noo York he allowed to be cautious and circumspect. He only bought himself tickets from one town to another, because he figured out that the railroad would work off a marked card on him somehow, and it required him two weeks to git to Kansas City. Tim said he looked into one o' them sleepin' cars with bunks in 'em, but he said he couldn't stand 'em. He said it was all right at night, but he wanted a place to sit down in the daytime.

"He fooled around Kansas City fur a week, kinder gettin' used to a big town, so as Noo York wouldn't shock him too much all in a heap. One day he was walkin' down the street when he seed a sign out in front o' a store which said: 'Special to-day—\$2.65 to Pittsburg.'

"He figured it couldn't be got no cheaper than that, so he got a ticket quick, before they was all sold, and that night he started out again. When the brakeman yelled, 'Pittsburg!' Tim git out.

"Tim said he had read considerable geography, and always supposed Pittsburg was full of smoke and red glare and cinders from the smelters, but this town was as black as the inside of a cow. He seed a man with a lantern on the platform and asked him how soon he could get a car to Philadelphia—not wishing to make the whole blamed jump at once—and the man told him he was a derned fool. Then Tim kinder inquired around-like, and when he discovered he was in Pittsburg, Kansas, he was the maddest man in the world. He said if he could have got the man what named them two towns the same, he'd have filled him so full o' lead you could have filed on him for a mineral claim.

"But after he landed in Noo York he said it was grand. Nothin' but saloons, and the gaudiest places, and everybody free and affable, and willin' to accommodate a man and take a drink and be sociable and friendly. Tim took a thousand with him and cashed the balance in his pouch at the depot, and all they charged him fur it was four bits, and it was worth it, too. Then he started out scoutin' fur the gal.

"He had her picture in the sardine can, and every place he went he lined the boys up at the bar and then he confidentially requested them if they knowed her. Tim told me it was surprisin' how many of them there actresses there was in Noo York. The place was fairly infested with 'em, and every operry house in town had bunches o' pictures out in front, showin' all kinds of female women, and Tim said he couldn't tell 'em from his gal to save his life, they was all so dressed up alike—no real clothes, you know; just plain legs.

"Tim ain't no quitter. He kep' on the trail, scoutin' around, and before long he had as much as a dozen of the boys he pin' to look, too. Mostly they'd sit around saloons, wonderin' where she could be. But it seemed there wasn't no Millie Miller in Noo York, and nobody knowed her.

"Then one night he allowed how he would find her himself, or bust. He'd go to every operry house in town. The first one he struck he bought the ticket, and hung around till the doors opened, and went in. It was kinder dark in there at first, but in about an hour somebody—Tim didn't see who it was—turned up the lights, and by and by two or three men crawled from under the platform and begun tuing up. They was the fiddlers. Then some more o' 'em come in, and then the people herded in, in a bunch. They was grand-lookin', and the ladies was simply beautiful, but not dressed up much around the neck, so Tim allowed they was dance-hall girls most likely.

"After awhile somebody pulled the curtain up, and the play started. Tim said it was the grandest play he had ever seen, and the most excitin', and he seed 'Ten Nights in a Barroom' down to Albuquerque once. There was a man in it that ought to have been tared and feathered, and then shot full of holes, only nobody done it, so there he was, jest raisin' the deuce at every clip. Tim said he'd just about judged he was the yellowest coyote he'd ever struck, when all of a sudden the back door opened and she come into the room.

"Tim knowed her right off. There wasn't no mistake, there she was. She wore a dress with diamonds all over it, and the tail of it so long she had to carry it around in her hand. She was just

lovely. Tim was agoin' to let her know he was there, when all of a sudden the yellow coyote come lopin' up to her, and, judgin' there might be trouble, Tim decided to lay low.

"Trouble come, all right—plenty of it. This homere had robbed a bank, or stuck up a stage, or done somethin' or other that was low-down, and he had to take to the mountains, and wanted the girl to light out with him. She didn't want to go, and then this skunk said if the didn't he'd tell everybody about somethin' or other she'd done once that she was tryin' to keep dark. She bust into tears, and the coyote, he made a grab for her. Tim jumped up, and as he ris he throwed both guns.

"That's my gal," he says, quiet-like, between his teeth, and then he gave the cub the fightin' word.

"Seneor Coyote took one sight o' them there six-shooters o' Tim's, and then jumped behind the gal, so, o' course, Tim couldn't do nothin'. By that time Tim said the place reminded him of the herd in a thunder storm. Before he could git up where the angel-face was, the curtain come down with a bang. Tim felt tolerable foolish. Then a couple o' men come easy-like down the path in the middle of the theatre, and said the manager wanted to see him, so Tim shoved his guns back, and went on out to a little office-like place. He told all about it—how he'd come up with her in the wreck, and had come all the way to Noo York to git her—everythin'. The boss turned to a sort of a scout in a little cage where there was one of these here talking telephones and told him to tell the serpent never mind, that it warn't no case for the police.

"Then the manager shook hands with Tim and told him he'd give him fifty dollars a week, reg-lar, if he'd come around and do it every night. Said it would make the piece go, and be the best advertisement in the world. But Tim said he must be goin' back home right soon. By and by the boss brought her around.

"She told Tim she'd been made a star, and was named Mildred Millington now, which was the reason he hadn't disklivered her before. He wanted her to marry him right off and wouldn't listen to no arguments, but she balked. He couldn't hobble

her nohow. Then the boss whispered somethin' in her ear, and she said she'd think it over and let him know in about a week.

"This made Tim feel mighty good. When he told her he'd come all the way to git her and fetch her back to X-X, and showed her her picture in the ardine can, she laughed so Tim said it did a man's heart good to see her, she was so beautiful and innocent and baby-like.

"The next day, dem my eyes, if every newspaper in Noo York didn't know all about it! They told about everything, and didn't miss nothin', and some of 'em had pictures o' Tim, and some of the pictures had him on a horse. It does beat the Grassers how gossip travels, don't it?

"Fur the next week Tim said he didn't git a chance to sleep, he was traveling around so. Everybody was glad to know him, and followed him wherever he went, and heaps of 'em borrowed money from him or bought him drinks. Every night the manager sent a autymobile around to the theatre, where Tim had a seat in a box, and after the play took 'em to the gayest hotels. Tim said he fairly swam in booze—none of your rotgut, but the genuine article, that couldn't cost less than six bits a throw, and tasted prickly, like a cactus.

"Every night Tim'd ask her to splice up, and every time he done it she said she'd let him know in a week, and every mornin' the newspapers would be laying bets whether he'd git her or not.

"Tim allowed she was the grandest actress that ever was, and it got so it was all a man could do to git a seat at her theatre. He said the play was all make-believe, and that the coyote that wanted to run off with her had a bald head and two children, and was quiet and respectable, and didn't mean a word of it, only it was wrote that way in the play, so he had to do it. Tim said o' course he could n't kill him, but I don't know; I think I would. A man ain't got no right to be goin' around insulatin' women like that, under no circumstances.

"Finally, Tim told the squaw he had to go back, and jest ragged around, so she said all right, she'd marry him. All the arrangements was made, and there was goin' to be a weddin' to make your hair

curl. Tim said he wanted it to lay over anythin' in the splicin' line that was ever done. He went down to the train-shed and got the pouch, and took them two thousand yellow boys and bought a diamond ring that would choke a steer, and the newspapers jest fannin' it along."

"By Jove!" I interrupted, "so Trinity Tim married a Broadway show girl and brought her out here to Texas! Now, if that's not romance—"

"He did not," said Skeets, twisting a fresh cigarette. "He did not. The day the weddin' was to be pulled off, she lit out to Europe with one o' them rich Wall

Street sharks that had him payin' to make her a star. The play went up with a bang, busted flat and owin' everybody, and the manager left town between two days. There warn't nobody left fur Tim to fight, so he come home. And he was so mad he up and married Sam McCarthy's widdler. She's the homeliest woman that ever came to these parts, I reckon, but Tim's got a ranch o' his own now, and four hundred head, and wears his boots inside his pants every day in the week, includin' Sunday. But I shorely advise you, if you see him, not to make no mention o' no actresses or nothin' like that."

THE SPIRIT OF DEAD FLOWERS

When the silver Queen of Darkness slowly rises o'er
the hill,
And shoots her shining arrows through the sombre
branches still,
And rests in glistening whiteness, on the rushes'
fluffy cres,
And in the pool's smooth mirror where the water
lilies rest,
Reflects the many diamonds bright that twinkle in
the sky,
And lights the fragrant grasses where their dendrop
sisters lie,
The spirits of the flowers that have faded through
the day,
Come forth and flutter dreamily where e'er the
moonbeams play,
They glide among the branches, in the shadows, in
the light,
And fill the lonely forest with the mystic sounds of
night.
They stoop and bless the sleeping buds that crowd
the mosses green,
And if you wander there, in the moonlight's silver
sheen,
You may hear a faint soft rustle in the leaflets over-
head,
'Tis the spirits of the blossoms that have risen from
the dead.

—Margaret Osborne.

The Mind and Sickness

By

F. E. M. Roberts

THE words "psychology," "psychic" and kindred terms pervade the literature of our day extensively, and from platform and pulpit we hear of "psychic treatment," the "psychological moment," etc., etc. In fact, psychology has apparently recently become a very interesting, not to say very fashionable "subject." For psychology—the study of the mind or "soul" of man—is, for the first time in the world's history, being put upon a practical basis. "How does it serve or benefit humanity?" is the question of the political economist, and the humanitarian. The answer is: "What benefits the individuals of a race benefits the whole race," and Psychology answers the definition. Now, after centuries of vague and utterly impractical theorising about the mind and "soul," Psychology has begun to observe, and experiments with facts, the result of these comparatively few observations and experiments has already proven the great importance of the study of Psychology to individuals and therefore to humanity. Indeed the predictions of some of the foremost medical men of the day is that Psychology is the one science to which the Twentieth Century must give heed. "The Secrets of the Universe," says Dr. Beard, the New York Neurologist, "so far as man is concerned are locked in the cerebral cell. . . . The forces that are now filling the lunatic asylums and other institutions of Great Britain and America may yet be antagonized by higher forces that shall submerge them." "Before the physical and moral reformer," says Dr. Luckey, the celebrated Neurologist of London, "lie a vast field of psychological possibilities still to be explored."

The basis of these predictions lies in the fact that Psycho-physiologists have recently proved beyond a peradventure that not only does a diseased body affect the mind, but to a greater degree, does a diseased mind affect the body. A wrong mental habit invariably causes some functional disorder—some important organ fails to do its proper share of work for the body. This, in time, weakens that special organ and in course of time real organic trouble may be brought about. The liver of a man, for instance, who habitually thinks on pessimistic lines, does not carry out its function properly, and the man pays for his lack of hope and faith—in frequent bilious attacks. We have also learned that the fit of rage which blanches or reddens the cheek, has, at the same time, not only deprived some important organ, or organs, of the blood necessary to their proper functioning, but has at the same time worked some mysterious change for the worse in the blood itself. The temperature at which the different cells of our body work best is about 98½ degrees Fahr. And whether at the tropics or the poles, a marvelous mechanism maintains the temperature of the blood at this point with very little assistance from us. A thought of hatred, however, may in a moment send it up to "boiling point" and in this condition it is spoiled food for muscle, nerve or brain cell. Dr. Hack Luke, in "The Influence of the Mind Upon the Body," gives a number of instances in which drugs have acted, not according to their proved properties, but according to the expectation of the patient. For instance, a patient having asked for an aperient pill, the dispenser, by mistake,

gave him one composed of opium an antimony, which, however, instead of producing drowsiness and perspiration, acted in the way the patient expected it to act.

A thought of fear is one of the most destructive of physiological agencies, its powers of harming the body is apparently unlimited as illustrated by the following incident in "The Unknown," by Flammarion. "Experiments are not wanting of persons dying suddenly in consequence of emotion. The experiment performed in the last century in England on a man condemned to death, who was made the subject of a study by medical men, is well known. The subject of the experiment" (Choosing death by the method he supposed the doctors were going to use, rather than public disgrace of being shot) "was fastened securely to a table with strong straps, his eyes were bandaged and he was then told that he was to be hanged from the neck until every drop of blood had been drained. After this a puncture was made in his skin with the point of a needle and a syphon arranged near his head in such a manner as to allow tepid water to flow over his neck and fall with a slight sound into a basin placed on the floor. At the end of six minutes, the condemned man, believing that he had lost seven or eight quarts of blood, died 'by the thought of death.'"

"The fact is," states the late Prof. James, "that there is no sort of consciousness whatever—be it sensation, feeling or idea—which does not directly and of itself tend to discharge into 'motor effect.' The 'motor effect' need not always be an outer stroke of behaviour. It may be only an alternation of the heart beats of breathing, or a modification in the distribution of blood such as blushing or turning pale, or what not. But in any case, it is there in some shape or other, when consciousness is there, and a belief as fundamental as any in modern psychology, is the belief at last attained, that conscious processes of any sort, conscious processes merely as such, must pass over into motion, open or concealed."

Thoughts indeed, are "Architects of Fate" in the physical as well as in the mental and moral realms; and hope for suffering humanity lies in the fact that right thinking helps to bring about, not

only right mental and moral, but also physiological conditions. That an attitude of courage and hope, for instance, will not only cause better circulation of the blood, but will also improve its quality.

It is the scientific observing and recording of facts of this kind that has brought about the world-wide Mind-cure Movement of our day, which exists among lay organizers under the different names of Christian Science, Metaphysics, Mental-therapeutics, mind-healing, etc., The general scientific term is psychotherapy.

This is no new power of the mind. One need merely recall the numerous and varied cures that have been made through all ages without the use of drugs to know that it must be an old one. The "Medicine Man" of the poor Indian frequently excoriated the "bad-spirit," the supposed cause of the trouble, by hideous howlings. Kings cured by touch: the relics of saints, believed in, have had the same power, while there are thousands of testimonies to-day to the "miracles" worked at Lourdes and St. Anne de Beaupre and other shrines.

Which is the primary influence in the case of sickness and health, the mind or the body? Whatever answer may be given to this question is as impossible to prove as that other endless question "In the beginning which came first: the chicken or the egg?" There is no difficulty in proving, however, that the mind is capable of being the master power with all of us. That it uses the body, controls the body and in many cases rises superior to it, as instances so often by the early martyrs; by the dancing dervishes of Asia to-day, who in their religious ecstasies cut and gash themselves with apparently no attendant suffering or pain; by the soldier who fights on with bullet in arm or leg, by the mother who watches for days by the bed of a sick child with no feelings of weariness or hunger, her thoughts all on the little sufferer, by the numerous historical cases such as that of the boy who, mortally wounded, brought from Ratisbon, news of victory to Napoleon, "a mile or more away."

What are the claims of Psychotherapy as a healing agency? How wide are they? Does it claim to cure everything or only certain ills? It is not necessary to con-

sider here the claims of those pseudo-sciences that declare "All is mind; there is no matter." Their exponents, with a logic not found in their literature, refuse to see any benefit in physical treatment. Their treatments often bear testimony to the unnecessary deaths of patients to the fallacy of their theories and their conduct brings discredit upon the real scientific mind-healing. Such "faith-healers" deny the existence of pain and sickness and yet proclaim their power, or Faith's power, to heal what to them does not exist, the diseased body.

The scientific exponents of psychotherapy, however, declare that as an independent agent, that is, independent of physiology, the field of psychotherapy is strictly limited. Its exponents do not, for instance, claim to cure organic troubles and they prescribe, therefore, the aid of the specialist, for the treatment of cancer, a broken leg, or an infectious disease, for neither the faith-cure nor the mind-cure, they declare, is adequate treatment for the diseased or maimed limb or the system impregnated with typhoid or diphtheria germs: In other words, they do not claim the power to run an engine that is without a boiler, perhaps, or water, or fuel, or in any other way badly damaged or lacking in essentials; but these defects remedied or supplied by the expert mechanician, they do guarantee to supply or assure the oxygen, the draft and the enkindling match, otherwise the energy, will and motive-power, without which the potential energies stored in our well-supplied machines would never be liberated. And just here one might ask, may not Science as well as Faith claim, in view of its glorious achievements of the past, some rights to be considered a hand-maid of Truth?

Psychotherapy claims pre-eminent rights—because of its already pre-eminent achievements—in the field of functional neurosis, that is, in all diseases rising from some perverted nervous condition, which nervous influence affects the function of an organ and makes it as unfit for its proper work in the body as though it were actually maimed or diseased. But some may ask: is psychotherapy, therefore, applicable only to persons nervous by disease? Yes. But nervousness, we are told, is the disease of the age, and psychotherapy has, there-

fore, an important role to play in attending the health of the age. Dubois, one of the greatest Neuropathologists of the day, says, "I dare to state that 90 per cent. of dyspepsias are psychoneurotic, and that all three patients should have nothing to do with restricted diet and stomachic medication. In the majority of cases very real cases of functional disorders exist but all those troubles are secondary, they indicate nervous depression. I often see patients who were just on the point of seeing clearly, but who missed it through their auto-suggestions (These are the thoughts suggested by the attitude of our own objective mind) and these sometimes brought about by their physicians—so with limited diets and exclusive diets go from bad to worse. Do not go about repeating the statement that nothing affects the temper like diseases of the stomach, it would be better to say nothing troubles the functions of the stomach like moody tempers."

Again, the drink or drug habit, Dubois declares to be a disease of the nervous system and can be cured, permanently cured, by psychotherapy, which always includes proper rest and good food besides the proper mental treatment. In fact, the conclusions of the most advanced psychophysiologists of the day is that psychic disorders require psychic treatment and that many distressing and dangerous disorders are purely or primarily psychic.

The following abbreviated list of diseases successfully treated by Dr. Luckey, the celebrated neurologist of London, England, by psychotherapy, will give an idea of the variety of ills that are of nervous origin. Chronic Alcoholism, Tobacco Habit, Morbid Delusions, Melancholia, Morbid Blushing—Epilepsy, Functional Paralysis, Writer's Cramp, Stammering, Dyspepsia of various kinds, Chronic Rheumatism, Cerebral Tumor, Morbid or false ideas—as for instance, the constant feeling that some one is behind one with the impelling desire to look back and see who, etc. Dubois claims that for all such highly nervous people drugs are not only inadequate, but are positively injurious. The diseased or morbid mind is the source of the trouble and any cure to be permanent, must calm the troubled waters of the fountain.

The limit of the power of the mind over the body has still to be set and may be beyond our day-dreaming. We know that in the East, India for instance, where mind-control and direction are regularly studied and practised, adepts achieve power over their bodies that to us seem nothing short of miraculous. The Hatha Yoga system, for instance, includes a complete series of exercises for the control of the physical body, so that all the muscles, both voluntary and involuntary, are brought into subjection to the will. The adepts in this system are called "Togi" as are also those in the Raja system. These latter Togi claim to be able to free the mind and soul from the body and transfer the mind and soul from place to place without its body.

But to return to the Hatha Togi, about two years ago, Prof. Von Bergmann, the famous surgeon, introduced one of these Togi to a meeting of the Berlin Medical Society. "He proved a puzzle indeed to the wise and learned men who comprise that erudite body of Berliners! Without apparent effort he drew up his abdominal organs from their proper position, leaving a cavity in their place. Then he pressed them down until his abdomen grew globular. Then he divided them into two sections, right and left, with a hollow between them. He can make the muscles of any part of his body tremble and shake like jelly. He is able to stop his pulse beating and can move his heart about as he wishes. What, exactly, the powers are that he puts into motion to bring about those singular results remained a mystery, even after his heart had been examined by Roentgen apparatus." Needless to say, but few arrive at this perfection of physical control, as the discipline and the exercises are long and tedious, but it demonstrates some of the potentialities of our marvellous human mechanism.

Strangely enough, though, as a lay movement, mind healing has spread almost phenomenally within the last quarter of a century. The professional medical authorities have, with amazingly few exceptions, failed to put into practice their own theories. In consequence, there are only a few Psychiatric Hospitals in the world to-day. And as a further consequence, though thousands testify to the positive cures made by the lay exponents

of psychotherapy, yet the ignorance of some of these representatives of both the facts of physiology and psychology does not make for the advancement of their individual followers. Mind-cures to secure the development as well as betterment of men, must be based as are all other permanently successful enterprises upon faith and reason. We know that misjudged facts and untrue statements have successfully launched enterprises, but, these disproved, investors have not only lost fortune but often faith in these and other genuine propositions. Though faith is the permanent factor in all mind cures, (that is, the belief that you are going to be healed) yet Reason has, too, its part to play, especially in the equipment of the healer.

Elwood Worcester, D.D., Ph.D., who, with the assistance of eminent medical men, has for the last four years been conducting most successfully, classes in psychotherapy at Emmanuel Church, Boston, without charge, says, in this connection: "We encourage the patients to acquaint themselves with the principles involved, by maintaining a good library of standard works, etc. Faith may be strong but it needs accurate and skillful direction in order to be useful as a therapeutic," or healing agent, hence the need of careful diagnosis, which is not merely physical but also moral. This is not a task which every shepherd is qualified to perform. It requires careful observation of temperament, capacity and idiosyncrasy which will tax the resources of the most gifted man. This study of conscience, this analysis of a life's experience in order to discover the cause of the present disturbance and to trace its history, requires time, sympathy and some psychological acuteness—motives which powerfully affect one man will have absolutely no effect upon another. Nor is it necessary merely to satisfy the reason, the will also must be aroused, possibly from the slumber of years. The task we are attempting is above all a moral undertaking, it demands moral qualities of the highest order, intuition, sympathy, kindness of heart, and an absolutely inexhaustible patience."

A new thought, a new conception of our relation to the Universe, to God, will suddenly "touch the hutton," to use a familiar illustration, that sets in motion that

mysterious, marvellous inner mechanism of the mind and a "new man" is made then and there, physically, mentally or morally. Innumerable authentic cases might be cited in proof of this and each one of us, perhaps, can recall at least one case where "a changed person from that day," as we say, was the result of a new hope introduced into that life, a sudden shock, or a deep love, something that in an instant changed the whole current of thought. In Harold Begbie's wonderful book "Twice Born Men," numerous instances are given of "re-created men." In one instance, "The Punter," once a famous pugilist whose record was that never once was he beaten by his own weight, became, through drink, "an object of fear." The state into which he had sunk can only be understood by a medical man. This man conceived a hatred for his wife and at last determined to murder her and end his life by dying game upon the scaffold. "With a butcher's knife concealed upon his person, he goes into a tavern for a drink. Standing at the bar he sees a vision of his wife murdered just as he had planned, just as he had desired, sees that he had died game upon the scaffold just as he had determined, but with it—the despairing knowledge that he was still not at rest. Somewhere in the universe, disembodied and appallingly alone, his soul was unhappy. This was the vision. With it, he saw the world pointing at his son and saying, 'that's young ——— whose father was hanged for murdering his mother.' A wave of shame came over

him. He came out of his vision with this sense of horror drenching his thought." The result was a re-created man and his conversation has stood the test of many trying years. Harold Begbie asks: "How did shame come to that utterly depraved and hardened man? And what in the language of psychology is shame? How does grey matter become 'shamed' of itself?"

"It is difficult," says Ray Stannard Baker, in his book, "The Spiritual Unrest," "to convey any idea of the eagerness with which suffering women, Protestants, Catholics, Jews, and non-believers, have come to Emmanuel Church in search of the new life. Where once the ministers were compelled to go out and urge men to come in (and this, notwithstanding the fact that Emmanuel Church has for years been doing the finest institutional and settlement work of any Church in America) it is difficult now to find room or time for all who come. All sorts of cases have been treated by Dr. Worcester and Dr. McComb and the lives of many women have been utterly transformed; from weak, hopeless, complaining, suffering beings they have been changed to hopeful, happy, courageous beings."

When, may we ask, will the pastors and medical men of Canada wake to the facts of modern psychology and physiology, and the testimony of modern research to the faith cures of Christ and the early Church? "And He did not many works there, because of their unbelief."—(Mat. 13 c., 58 v.).

One Of Many

By

Ells Middleton Tybout

IT was noon on University avenue, and the July sun had been shining many hours. Heat radiated from the pavements, the roadway, and even from the people on the street, who moved languidly, as though reluctant to make the effort necessary to reach their destinations. On the trees the leaves hung limp and lifeless, bearing but slight resemblance to the fresh green of their early springtime.

July noon in the provincial capital, with the thermometer crawling higher every moment, and a long afternoon of blazing sunlight yet to be endured!

At twelve o'clock the Provincial Government offices opened their doors and emitted a stream of listless humanity for the brief time considered ample for refreshment of the Civil Service inner man or woman.

From the big granite building in which certain administrative offices were located two men emerged, and paused before descending the steps.

"Good Lord!" ejaculated one. "What a day."

His face was large and red, and he mopped it vigorously. Prosperity and perspiration exuded impartially from every pore, and his forehead shone in opposition to the diamond ring glittering on the third finger of his plump left hand.

His companion glanced at the thermometer hanging in the portico. His face was thin and pale, with lines about the mouth and eyes. The skin was dry and perched, and his general aspect resembled the foliage in the avenue that hung wilted and dejected upon its stalks.

"Two degrees worse than this time yesterday," he remarked, and unfurled an umbrella preparatory to plunging into the

white expanse of the sun-baked avenue. The elder man laid a detaining hand upon his arm.

"See here, Wheeler," he said, "I want you to come and lunch with me. I've got a motor waiting—no use to walk when we can ride. We can talk over the matter of those engines just as well, and a bit better, at the Royal Alce as at the Agricultural Department."

"That is very good of you, Mr. Covington, but really——" Wheeler paused uncertainly.

"No excuses," said Covington. "I really want you, and you can't deny that riding is a whole lot better than walking to-day. What a chap you are! I never can get you to break bread with me, though I try it every time I'm in town. Don't be a chump, but come on."

Wheeler looked at the hot white way that led to his usual quick-lunch room, and then at the motor. He knew the winds waiting at the end of each route were as different as the way that led to them, and he hesitated no longer. Sometimes our physical yearnings clamour insistently and will not be repressed.

"I'll come with pleasure," he said. "No same man would walk to-day, when he could ride."

In the Alexandra dining-room judiciously arranged shades tempered the glare, electric fans cooled the air, ice clinked melodiously in frosty glasses, and one felt that life under certain circumstances was endurable in spite of the thermometer.

Covington gave undivided attention to the order, and when it was despatched glanced around approvingly.

"Not so bad, is it?" he said. "Of course it's not the Emprise at Victoria, but it



does pretty well, on the whole. Come to Montreal some time, Wheeler, and let me show you the village. We'd make a night of it—eh?"

He laughed in the frank, jolly manner peculiar to many stout men, and beamed upon the world in general. Wheeler smiled in return, and a longing for a personally conducted tour of Montreal arose within him. The arrival of the waiter with cocktails, ice cold and perfectly mixed, here created a diversion.

"Go right to the spot, don't they?" remarked Covington, setting down his glass. Wheeler agreed, but welcomed the chilled grapefruit and Little Neck claims that followed, for he was beginning to feel pleasantly hungry—a sensation he had almost forgotten.

The lunch was well chosen and good, and as it progressed a tranquil and bland sensation stole through Wheeler's veins and permeated his being. He felt at peace with the world, and when coffee and cigars appeared, he accepted them as a matter of course. He even forgot to notice, when he took a match from Covington's silver box, that his cuff was frayed and not entirely fresh, while his companion's linen was quite immaculate.

"Well," said Covington, "as I was saying, Wheeler, I'd like to show you about my city. We'll do the town when you come on to test those engines."

"I only wish you might. But you know the engines—well, I told you this morning."

Covington gave his jolly laugh.

"Perfect rot!" he said. "Why, those little machines are the best ever, and you know it."

"I don't say they are not good, Mr. Covington, but they are not quite up to our specifications. I'm mighty sorry, but there is really no use for you to bid at all."

"Now, see here," said Covington, "let's talk the thing over sensibly. The trouble is not with our engines, but with your specifications. Who drew them up?"

"I did."

"Well, they're all right up to a certain point, but when you came to capacity, I think you made a mistake of half a kilowatt. Didn't you?"

"No," said Wheeler, slowly; "no, I did not. That was the size of engine they wanted."

"They?"

"Yes, the board of officers. They decide on what they want, you know, and I carry out their orders."

"And do you agree with them?"

"They should know more about the subject than I do."

"But they don't?"

Wheeler was silent. His private opinion was that his own knowledge of the subject was unsurpassed, but he felt a delicacy about saying so in bold words. Covington, watching keenly from half-closed eyes, took his measure accurately and spoke with discretion.

"All booh! What is their opinion compared with a skilled expert like yourself? It would have absolutely no weight with a big corporation—like ours, for instance."

Wheeler began to feel that he had never before realized his own ability, but he shook his head with a deprecating expression nevertheless.

"Now, then, let us talk plainly—man to man."

Covington knocked the ashes from his cigar and paused an instant.

"I'll be frank with you, Wheeler. We want that contract—it's a big thing. Not so much for the money, for, of course, we are in a position to be more or less indifferent to that, but for the advertisement. We want to be able to say that the Canadian government uses our machines, y'know. That's reasonable, isn't it?"

Wheeler acquiesced. He felt that argument would be wasted, and, moreover, he was conscious of a decided inclination toward his companion's point of view.

"Then, too, there's something else"—Covington spoke regretfully. "I'm a Canadian, and I'm patriotic. I'm proud of this country, by God, and I'd like to be sure it has the best of everything. Now, our machines are good—they've been proved many times. There is nothing better for your purpose, and you know it."

"If only they were a little larger."

"We are not going to change our engines, because we know they're all right; but you"—Covington spoke slowly and distinctly—"you are going to change

those specifications, because your judgment tells you they are wrong."

Wheeler gave an involuntary movement of repudiation, but the other was still speaking:

"You bring them down one-half a kilowatt, and we'll get the contract, for we can well afford to underbid all the other competitors. We get the contract, the government gets good machines, and you get five thousand dollars for your personal account. Everybody satisfied and happy, and no kick coming anywhere. See?"

Wheeler saw. He gazed before him as if fascinated, and the cigar in his hand went out from lack of attention. Behind its bank of palms the stringed orchestra played.

Wheeler heard it, dimly, as from a distance. He also heard Covington's voice, remote indeed, but definite and clear.

"When the specifications are printed the change will be due to a typographical error. If not, and any unpleasantness should come your way—well, then, there's a berth waiting for you in the Great Amalgamated Electric Company, at double your pay here. We need able men as well as the government. Think it over."

With abrupt change of manner, he settled the bill and looked at his watch.

"I'm off to Montreal on the 10.30," he remarked. "I'll send you back to the Department, and then the motor will take me to the hotel. I'll look in to-morrow afternoon and see what's doing. Think over our conversation, Wheeler. I'm a man of my word, and whatever happens, you won't play a losing game. So long."

Wheeler returned to his desk with a strange sense of unreality. Mechanically he went to the book provided for the purpose and there recorded the fact that his lunch had consumed two hours and a half instead of the allotted sixty minutes. Moreover, he did not care if it had. Well fed and refreshed, and with a feeling of independence as pleasant as it was unusual, he was inclined to snap his fingers at departmental restrictions, if not to ignore them completely.

The afternoon wore on. Electric fans stirred the stagnant air, mingling their buzzing with the incessant click of typewriters, and the atmosphere of the crowd-

ed room grew steadily heavier and more intolerable.

At his desk Wheeler sat with the type-written copy of the specifications before him, and a pen in his hand. It was quite ridiculously easy. They had been read and approved, and were ready for the printer. A typographical error would be logical and easy understood. It need not be discovered until the contract was awarded, since he would read the proof. The pen was dipped once more in the ink, and again allowed to dry as the hands of the clock revolved slowly.

"Thank goodness!" ejaculated a stenographer, as she closed her machine, and Wheeler realized that it was half-past four.

"I won't do it," he decided. "I guess I'm man enough not to be bribed."

Pushing away the papers with a sense of relief, he prepared to go home.

Wheeler was a type of man prevalent in most departments of the provincial government. Born with a desire for knowledge and no money to acquire it, he had worked his way through McGill, specializing on electricity and engineering and graduating creditably. Then he faced the world with his diploma for an asset, and a sheaf of unpaid bills for liabilities. Contrary to expectations, the large companies did not immediately clamor for his services. Most of them were already supplied with satisfactory electrical engineers and had a waiting list in case of vacancies.

Meanwhile he must live, so he took the Government examination. The Agricultural Department, it appeared, was in need of expert knowledge in connection with irrigation works, and the four figures of the salary looked large when compared to mere ciphers.

"It will do for something temporary," he told his friends. "Of course I only mean to stay until I can get on my feet and look about a bit."

After seven years he was still there, waiting to get on his feet. At the end of the first year, having paid his debts, he married and immediately contracted new ones. Renting a small house, he furnished it on the instalment plan, spending happy hours with Emmy wandering among the mazes of golden oak and veneered mahogany, and listening to the se-

ductive voice of the salesman explaining the convenience of monthly payments.

Emmy wanted Nottingham curtains for the bay window in the parlor—they gave an air to the room never to be obtained from plain muslin. She also wanted a piano, so she could play softly to him in the evenings when he came home tired from work. Dust accumulated on the lid of the piano long before it was paid for, because by the end of the first year unexpected contingencies arose that kept Emmy busy—among them the advent of little Bill and the bills of nurse and doctor.

Time went on. His family increased, his work increased, the cost of living increased, and his pay remained the same. Why, indeed, should it change? Colleagues turned out bunches of specious electrical engineers every year and the Province could always get one for whatever it chose to pay. The Legislature exclaimed at the expenses of the departments. Why, therefore, be extravagant and pay more for knowledge that might, if necessary, be obtained for less?

So Wheeler remained, growing daily more morose and discontented. Yet he continued helping turn the treadmill that ground the governmental grist because he dared not exchange an inadequate certainty for an uncertain competence. And every month his money melted like snow beneath the sun.

After dinner that night he sat on his doorstep with the evening paper unopened in his hand. He was conscious of an intense longing for the material things of life—well-cooked food, good clothes, cooling drinks, automobiles, yachts, and all the other roses that carpet the pathway of the well-to-do. He had never been accustomed to these things, and they were as remote from his horizon as the stars in the sky. Nevertheless, he knew that they existed for other men, and with all his soul he wanted them himself.

After a while Emmy came and sat beside him. She was flushed and moist, the result of washing the dinner dishes in the steaming kitchen, and her fair hair lay in damp strings across her forehead. All the brightness he had loved had faded from this hair, even as the glad light appeared no more in her blue eyes at his approach. Emmy had grown from a ro-

mantic girl into a fretful woman, chiefly for lack of a few things not absolutely necessary to insure existence, but very vital to give it light and color.

She had quite a budget of domestic items to retail. Milk had increased in price half a cent a quart; little Bill had fallen downstairs and bumped his head badly; the butcher had been disagreeable again about last month's bill; the baby had cried all day—she did not see how he could get through his second summer in this awful heat. The children? She had sent them to a nearby park with Clara.

"You might find something to say to me, Arthur," she complained. "You go out every day and see people, but you never have anything to tell me when you come home."

Wheeler realized that this was true, and roused himself to tell her about his lunch, describing each course minutely. She listened with the abstracted expression of one whose thoughts are far away, and made no comment.

So silence reigned, and the twilight deepened. With evening came the breathless heat and stillness peculiar to this particular city's summer nights. The sun, to be sure, was gone, but no breeze stirred the limp leaves, and no life freshened the air, heavy with the effluvia of the asphalt street.

"Arthur"—Emmy spoke slowly and with evident reluctance—"Arthur there is something I must tell you—something unpleasant."

He turned and looked at her, but she did not meet his eyes.

"Tell me," he said, "and get it over." She hesitated a moment, then moved closer, whispering a few words. And what she told him concerned themselves alone.

"You are sure?" he said.

"Quite sure."

Wheeler looked away from her down the quiet street. A little group had just turned the corner. It was composed of Clara, the half-grown servant girl, and his two children. She pushed a go-cart in which fretted the sleepy baby, while little Bill, tired and hot, clung whimpering to her skirt.

Quite suddenly Wheeler seemed to be preoccupied a year further on. He saw himself next July sitting on the same

steps, wearing the same garments, and watching Clara turn the corner. A child was on each side of her, but she still pushed the go-cart.

A choking sound recalled him to the present, and he saw his wife, her face buried in her hands, sobbing uncontrollably.

"Oh, Arthur," she cried, "don't, don't, look like that! I can't help it, and it's worse for me than it is for you anyhow."

Two hours later Wheeler stood in the corridor of the Agricultural Department and requested the key of his office from a watchman. The man knew him and handed it over promptly.

"Working nights?" he said.

"Too hot to do anything else," returned Wheeler, and wearily began the long ascent of the stairway.

It was strange to be alone in the familiar room. Turning on the electric light over his desk, he sat down and wiped the drops of moisture from brow and lips. Then he reached for the papers he had put aside a few hours previous and dipped his pen in the ink.

With compressed lips and steady hands he turned the typewritten pages, altering a figure here and there, and scanning them carefully to be sure not one was overlooked. When he had finished he replaced his pen, and again wiped his brow.

"God!" he breathed, and pushed away the papers.

A glass door beside him led to a stone balcony. He opened it and stepped out. He sat upon the wide stone balustrade and leaned his head against the wall of the building. He sat there motionless, and the moments passed unnoticed, until at last a sort of calmness stole over him. He felt no regret for what he had done, now that it was an accomplished fact. All the hills should be paid, Emmy and the children should go to the seashore, and in the fall a competent maid should help Clara with the housework. Emmy should have the rest and care she needed. He had done it, and he was glad it was over. What allegiance did he owe the Government, anyhow?

Down beneath him was the local House of Parliament. He could see the white domes of the building, but the building itself was dark, for the lawmakers had fled to the lakes, after refusing to consider

an appeal for advance in pay of civil employees. His face darkened as he looked at the place, and involuntarily he clinched his hands.

"D—them!" he said aloud. "But for them I could be honest."

Then he left the moonlit balcony to join Emmy in the stuffy front room, where he lay awake until morning.

When Wheeler reached his desk next day, a red-haired, freckled boy stood at the window looking out. He was a temporary appointment, fresh from the High School, and babbling over with health and good nature. When his three months were up he would vanish from their horizon, but meanwhile he was popular in the room.

He now nodded affably, and moved a little.

"Morning," he said. "I'll take myself off where I belong in a minute. I just came over to see the flag go up."

"The flag?"

"Uh-huh. On the Parliament Buildings."

"Oh, yes," Wheeler opened his desk. "So you like to see it?"

The boy nodded.

"Don't you?" he asked.

"Why—yes, I guess so."

The raising of the Government flag had long ago ceased to interest Wheeler. He merely glanced at it now and then when he wished to know whether the House was sitting or not. Not so, Young Canada beside him, who as yet had no grievance against his Government.

"There she goes!" he exclaimed. "See her?"

Wheeler turned and looked also at the big flag slid up the staff and spread its red expanse in the morning sunlight.

"Fretful, ain't it?" said the boy, and continued without waiting for a reply: "Gee! Wouldn't Champlain or some of them fellows be surprised if they could see it?"

"Why?"

Wheeler asked the question idly. He wished his visitor would go, for he wanted to take a look at his last night's work and send it to the printer. But the boy was in no hurry; he seated himself on a corner of the desk and prepared for conversation.

"Why?" Well, just look at the flag. It isn't to mean so much. But now—a fellow's glad to be Canadian! *E pluribus unum*, y'know, and all that."

"Yes," agreed Wheeler, without enthusiasm.

The boy went again to the window and looked out.

"See her float," he said. "I sort-a like to watch it, hut—"

"Well?"

"You'll laugh, I reckon, hut—well, I wouldn't want to look at it if I'd done any mean, low-down trick. Say, let down easy on things you want copied to-day, won't you? It's hotter'n blazes."

He went over to his own desk, and promptly forgot the conversation. Wheeler also began the day's routine, but more than once he found himself looking over at the Buildings, where the colors of the flag gleamed in the strong sunlight. They were fast colors, no sun could fade them, and they held the eye insistently.

He was tired and languid from lack of sleep, and very irritable. Everything fretted him, and he could not concentrate his mind upon his work. Twice he rang for a messenger to send the specifications to the King's Printer, but when the man appeared he made another errand for him and kept the papers on his desk.

Ten o'clock, eleven, half-past eleven. The clock ticked on, and Wheeler abandoned all pretence of work, sitting idle at his desk, pen in hand, even as he had sat there yesterday afternoon. He did not see the words before him. Instead, from every page he turned Emmy looked at him with wistful eyes; Emmy — who ought to be still young, hut was not, and who needed a rest.

Then, quite suddenly, he saw Covington's round red face, and heard his voice in hearty greeting. He knew just what would follow. They would dine at the Willard, where it was cool, and there was music. With the coffee and cigars

would come a folded slip of pink paper—he could see Covington's fat hand searching for it in his waistcoat pocket, and could almost feel his own fingers closing upon it. Then he would go home, and to-night Emmy would not complain that he had nothing to tell her. Covington would soon be here now. What was it he had said?

"What happens, you cannot play a losing game."

Over in the corner, the red-haired boy hummed his typewriter, doing his best in his special line and careful not to make mistakes. In his swivel-chair Wheeler went over words and figures, familiar now to the point of nausea and repellant to his eyes.

Then, quite without his own volition, his hand sought the pen and dipped it in the ink. Once more he turned the pages, this time replacing his last night's work with the original figures, writing distinctly, and careful to make no mistake.

He worked in a detached manner, as if the subject had no personal interest for him, but must be finished as soon as possible. He felt as if he were dreaming, but would wake soon, and he wished he might sleep indefinitely.

The last page reached, he pushed the hutton for the messenger. Then he turned in his chair, and his tired eyes looked out over the Parliament Buildings, where the flag hung in straight limp folds against its staff. But as he gazed a puff of wind rippled these folds, finally raising it and spreading it against the blue background of the sky. Wheeler watched it until, the breeze gone, it drooped again upon the staff.

"*E pluribus unum*," he muttered to himself. "One fool among many."

Then, aware of the waiting messenger, he handed him the papers.

"Here," he said, "take these specifications to the printer, and be quick about it."



PERMANENT STEEL BRIDGE OF THE NEW ERA
Vielcort over Old Men River in Alberta, the kind of structure which is superseding the wooden trestle.

Millions for Railroad Improvements in Canada

By

W. Arnot Craick

THE whistling of the air brakes on the seventeen hundred passenger and seven hundred freight trains, which are despatched over the steam railroads of Canada from Atlantic to Pacific every day of the year, is forever calling the attention of the traveler to the wonderful process of evolution through which the railroad systems of the country are passing. There is no standing still. Even the smallest road must needs fall in with the march of progress and adopt those improvements and betterments which are essential to its

continued existence. It is an interesting study to trace out how the employment of some one new device often leads inevitably to a whole chain of alterations in road-bed, mechanism, and equipment, costing millions of money.

The movement towards a more modern and efficient system of railroading in Canada dates from about the year 1897. Prior to that time there had been some years of retrenchment. The United States and Canada had passed through a period of hard times, which had led the managements of railroads on both sides of the





A LOCOMOTIVE OF THE OLD ERA

This was the first engine built by the C.P.R. It weighed forty tons and could travel safely on a fifty pound rail.

use to adopt a policy of economy in all departments of operation. This policy, necessitated as it was by financial stringency in the first place, was continued for some time after the return of more prosperous times had rendered it no longer essential. It took form in one direction, at least, in

the building of larger locomotives, capable of hauling longer and heavier trains, and of bigger cars, with much greater carrying capacity. Then, in order to make the running of these heavier trains safer and more expeditious, the railroad companies became immediately involved in a prac-



THE PROGENITOR OF THE MODERN LOCOMOTIVE

Built in 1825, this engine hauled the Royal train in which the Prince of Wales travelled in Canada in 1860.



A LOCOMOTIVE OF THE NEW ERA

This 100 ton monster requires a hundred pound rail to support it. Its advent has meant the scrap-heap for much railroad equipment.

tical reconstruction of their entire road-bed, at a cost, oftentimes, in excess of the cost of original construction.

This work of reconstruction is still in process in many parts of Canada. It is being forced on the railroads by the exigencies of a situation which demands that no one road can afford to lag behind another in its efforts to carry freight and passengers as cheaply, safely and rapidly as possible. The story of railroad development in Canada along these lines will prove a revelation to those who are inclined to think that railroad companies only make their large expenditures on the construction of new lines.

But the introduction of heavier engines and cars on Canadian railroads was only made feasible, after all, by the invention of the air brake. This wonderful contrivance has done more to revolutionize railroading than almost any other invention since the locomotive itself was first constructed. Without its aid the operation of the heavy transcontinental and international expresses which rush across Canada with such tremendous momentum would be attended with so much danger that it would be next to impossible to run them safely and satisfactorily.

Most Canadians can recall the days of the hand brake, when brakemen were accustomed to run along the tops of the freight cars or through the aisles of the passenger coaches, setting the brakes by twisting an iron wheel at the end of each car. The comparative lightness of the cars in those days made this method of control practicable, but to-day it would be no easy matter to stop a heavy express train, traveling at high speed, by hand power alone.

The invention of George Westinghouse

was revolutionary in its results. From its practical application to railroading dates the growth of modern railroad equipment. It had in it the germ of all the thousand and one improvements and betterments which have gone to make the modern railroad the smooth and perfect mechanism it is to-day.

Westinghouse's invention was irresistible. No railroad company, no matter how conservative, could afford to ignore it. It was taken up everywhere and nowhere more quickly than by the leading Canadian roads. Despite the huge cost involved in equipping locomotives and cars with the system, its advantages were so patent, that before long most of the rolling stock in the country was under its control. To-day, out of the 132,681 cars of all descriptions on Canadian railroads, 125,321 are furnished with the air brake equipment. At an average cost of fifty dollars for a freight car, \$150 for a passenger coach and \$500 for a locomotive, the railroad companies have spent in the neighborhood of ten millions for air brakes on their locomotives and cars.

Thus dawned the era of the new Canadian railroad—not with any flourish of trumpets or display of fireworks, but imperceptibly, almost, and with a resistless force, which nothing could prevent.

To illustrate the way in which locomotives have increased in size and weight during the past fifteen or twenty years, one need only refer to the popular fallacy of calling a big engine a "mogul." Newspaper readers are regaled with lurid accounts of how "a big mogul" hurls itself out of the darkness upon "a little passenger engine" and smashes it to smithereens. Such descriptions sound very amuse-



CONDEMNED AND SUPERSEDED

The James V. Lorne Tubular Bridge across the St. Lawrence, which was one of the wonders of the world for many years.



THE SUPPLANTING STRUCTURE

The Victoria Jubilee Bridge, the section of which at extreme east, because impracticable when the era of heavier equipment dawned.

ing to railroad men. In reality, the mogul engine in the collision is probably the small one of the two. Fifteen to twenty years ago the mogul, which is the name technically given to a locomotive having three pairs of driving wheels and a single pair of truck wheels, was really a big engine, but to-day it is ordinarily one of the smallest engines in use. As a mere question of size, the average engine of the old era weighed 40 tons, without tender, having a capacity of 65 per cent. The biggest engine in use in Canada to-day, is of the "Articulated" type, weighs 150 tons and has a capacity of 270 per cent.

Every traveler must have been impressed with the immense increase both in size and weight of the passenger coaches now in ordinary use in Canada over those in use twenty years ago. Here again figures will demonstrate this increase more clearly than any other method of description. The wretched and, to us, uncomfortable coaches of the eighties only weighed on the average 25 tons. The big and luxurious coaches which are being built for Canadian roads to-day tip the scales at 45 to 55 tons.

And as for the freight cars, the change has been just as notable. Not so very many years ago a box car, only twenty-four feet long, was no uncommon sight. Then, during the eighties, the standard had risen to thirty-three feet. To-day it is 36 ft 8 in. By the discarding of the smaller cars from year to year, and the substitution of larger cars, the average tonnage of freight cars is steadily increasing. In 1907 it stood at 27.6 tons; in 1910 it had advanced to 29.1 tons. In the same way the average amount of freight carried by each car during the course of the year has grown from 545 tons in 1908 to 622

tons in 1910. Freight cars capable of holding 55 tons are now being used in Canada.

For the year ending June 30, 1910, it cost the railroads of Canada the sum of \$8,812,778.25 for the purchase of ties, rails, ballast, other track material, and the construction of tunnels, bridges, trestles and culverts. This expenditure comes under the heading of maintenance of way, and illustrates forcefully what the railroads have to spend annually to keep their roadbed in condition for the operation of trains, which are becoming every year bigger and heavier.

Consider the item of steel rails. At the beginning of the new era, Canadian roads were as a rule equipped with rails weighing sixty pounds to the yard. For carrying the rolling stock of the previous decade these rails were entirely satisfactory, and they would even have done later on in sections where traffic is light. But on main lines, where trains are run at frequent intervals, and the wear on the rails is severe, their usefulness was over immediately the day of the heavier train dawned. Heavier rails had to be substituted at once. From sixty pounders, the standard rose to seventy-two pounders, then to eighties, and to-day the average rail weighs about 85 pounds to the yard, with hundred pound rails on some sections, where the wear is particularly heavy.

While under ordinary circumstances the life of a rail extends from about ten to twelve years, owing to the changes outlined above, tracks have had to be relaid at intervals of from 7 to 9 years. When the thousands of miles of road are taken into consideration (a total of 26,280 miles on June 30, 1910) the immense expense

of this particular kind of reconstruction work is abundantly apparent. Roads like the Canadian Pacific and the Grand Trunk have to maintain a complete track-laying equipment all the year round, consisting of trains of flat cars, boarding cars, etc., manned by a gang of track layers. The new rail bill of the C. P. R. for 1910 was nearly \$400,000, most of which was spent in re-laying old tracks.

Of course the substitution of new rails for old does not mean that the old rails are unnecessarily of no further use. They are not a dead loss to the railway company. A process of culling is carried on. The best of the old rails are reserved for repair purposes or for use on branch lines. The next best go into sidings or unimportant branches, and only the poorest are scrapped.

While the running of heavier trains has occasioned the discarding of light rails, it has not necessarily involved any serious changes in the character of the ties on which the rails are laid. The life of the average wooden tie in Canada is from six to ten years, and when its life is exhausted, it is used for firewood in section houses or otherwise disposed of. But one change has been found necessary by the laying of heavier rails, and that is in the placing of the ties. While twenty years ago the ties were placed with centres twenty-four inches apart, now they are laid with only a distance of from eighteen to twenty inches between centres. This means that in a given stretch of track from twenty-five to thirty-three per cent. more ties are needed than was formerly the case.

But this is not all. The greater cost of ties at the present day must also be taken into consideration. Ties now cost from

one hundred to one hundred and twenty-five per cent. more than they did twenty years ago. This heavy increase has led to the chemical treatment of the wood by some American roads, with the object of lengthening the period of use, and doubtless Canadian roads will soon have to give serious attention to the adoption of a similar policy. The tie bill of Canadian roads is now three million and a half a year.

However, the wear and tear on rails and ties, occasioned by the fast running of heavy engines and cars, has caused such friction between the rails and the ties, that in order to save the latter from early destruction, it has of recent years been found necessary to introduce what are known as the plates—flat pieces of metal, with or without shoulders, resting on the ties, and on which the rails are laid. These are calculated to prevent the wearing away of the wood and spreading of track. They are now being generally used and the equipping of a section of road with them naturally involves heavy expense, both in the purchase and the laying of the plates.

And then again the item of ballasting must be remembered. The relaying of the tracks has necessitated the use of a great deal more ballast in order to give the track the evenness and solidity which it needs more than ever under present conditions. Ballast cost the railways of Canada about a million dollars in 1910.

But where the effect of the heavier equipment has been most felt is in connection with the bridges. Before the larger engines could be safely run over the line, every bridge and trestle had to be strengthened to bear the heavier load, and this was followed by the rebuilding of practically every bridge in the country. Most



A CONTRAST IN STATIONS AND EQUIPMENT

The G.T.R. Station in Toronto in 1897. Note the shabby coach to the left and the rough plank platform.

of the old bridges were constructed of wood. These have been, and are being, replaced by steel and stone or concrete structures, erected with a big margin to make good any extra stress for many years to come. What this is costing the railway companies may be gathered from the fact that the bill for this work in 1910 amounted to \$2,048,471.72.

In addition to this it has been found advisable to practically rebuild miles of road in order to straighten the lines and to reduce grades to a minimum. When the Grand Trunk started the heavy work of double-tracking their main line from Montreal to Toronto, they carried the undertaking along satisfactorily as far as Port Hope, and then they struck a kink. West of Port Hope the line ran into a hilly section of country where the grades were killing. Following the lake shore the old road skirted the tops of the headlands and swung down in long curves around the inlets. What was to be done? Operating trains west of Port Hope was expensive. Frequently freights had to be cut in two and run in sections and there were often cases of trains being stalled on the heavy grades. To double-track the old road seemed a piece of folly and for some years nothing was done. Then Charles

M. Hays, the little Napoleon of Railroad-ing, took hold of things. "We'll locate an entirely new line wherever necessary from Port Hope to Port Union," said he, "and get rid of heavy grades and sharp curves." So the Grand Trunk engineers struck into the fine farm lands of Durham county and for many miles constructed a brand new railway, which in some places lay a full mile away from the old road. The gradients were reduced from a maximum of 1.02 per cent. to 0.30 per cent. against east bound traffic and from 1.03 per cent. to 0.66 per cent. against west bound traffic. It cost millions to do it but it reduced operating expenses tremendously.

This is but one example. Recent railroad history supplies many others. The C. P. R. double-tracking operations along the grain-funnel route from Winnipeg to Fort William necessitated the deviation of the road for many miles through the rough country west of Lake Superior. It cost C. P. R. shareholders from twelve to fifteen million dollars to do this little job, but resultant economies in operation abundantly justified the investment.

The most spectacular of recent engineering feats in railroad reconstruction has been the building of the spiral tunnels on the mountain division of the C. P. R. between Field and Hector, B.C. Here was the situation,—a narrow mountain valley



A CONTRAST IN STATIONS AND EQUIPMENT

The Sarnia Tunnel Station, showing modern electric locomotive, heavy coaches and cement platform.

through which the Kicking Horse River poured tumultuously, and a railway clinging perilously between the steep slope of the mountain and the rushing river. It was only a distance of four miles between the two stations, but the grade reached a maximum of 4.5 per cent. which was quite enough to turn any engine driver's hair grey. In the light of modern conditions, this state of affairs was unbearable, but how could it be altered? What was wanted was some way of stretching out that four miles of track until it would be long enough to reduce the grade to a reasonable figure. Many were the suggestions offered but none were deemed practicable until one day a long-headed individual asked why, if they could not get distance in the open valley, they could not secure it by running up into the mountainside, where there was an amount of room to be had for the blinding. It was a happy thought and it proved to be the solution of the difficulty. Trains now cover 8.2 miles of track in running between Hector and Field, part of which distance is consumed in circling round towards the interior of sky-scraping mountains and coming out again at a lower level. There is a reduction of grade from 4.5 per cent. to 2.2 per cent. and while it cost

up in the millions to achieve this result, look at the saving.

The Crow's Nest line of the C. P. R. between Lethbridge and Mapleton used to be a source of much worry and expense to the management. It was only thirty-seven miles long but they were thirty-seven miles of trouble, with seven degree curves and a 1.2 per cent. grade. More-over nearly three of the thirty seven miles were consumed in wooden bridges one of which was 2,933 feet long and several of them over 100 feet high. Though only built in 1897, the life of these bridges was nearly over by 1904 and there was constant fear of collapse. Traffic was increasing and something had to be done. With one sweep of the pen, the C. P. R. directors obliterated the whole road and gave orders for a brand new railway, costing over two million dollars. What was the result? A saving in distance of 5.26 miles; in curvature of 1,735 degrees; and in rise and fall of 401.5 feet, with a reduction in the number of bridges from twenty to two. One of the latter is the celebrated Belly River bridge at Lethbridge, one of the largest in the world, 5,327 feet long and 314 feet high at the highest point.

But it was not only the roadbed of the railways that was affected by the advent



THE PRECURSOR OF THE MODERN EXPRESS

On this primitive train, the first in Canada, our forefathers traveled in fear and trembling seventy years ago.

of the new locomotive and cars. Many other portions of the railroad systems had to be changed to meet altered conditions. For instance, turntables which could accommodate moguls were not long or strong enough to take on modern ten wheelers or consolidation. Every turntable on the divisions where the larger engines were introduced had to be replaced with a bigger one. Practically the same thing applies to engine houses. The coming of the big engines with their greater length and height meant the practical demolition of all the old houses and the erection of new and larger ones. When it is recalled that there are over four thousand locomotives in everyday use on Canadian railroads, of which a majority are of the new type, it follows that the engine house space required to shelter even a small per-

centage of them is very considerable and must have cost a large sum. Then too the repair and machine shops to which locomotives are sent for overhauling from time to time, have had to undergo complete reconstruction, owing to the inadequacy of their equipment for handling large engines.

Even the evolution of the passenger coach from the light and uncomfortable vehicle of the eighties to the solid vestibuled coach of to-day has been attended by an immense variety of consequent improvements, involving the expenditure of large sums of money for their installation. As one example consider steam heating which has superseded the old coal stove, that was not only inadequate but dangerous. The introduction of steam heating has involved the establish-



THE LITTLE OLD FREIGHT CAR OF TWENTY YEARS AGO

This car was only capable of accommodating 20 tons, as against 50 ton capacity in present-day cars.

ment at all terminal points of stationary steam heating plants for keeping standing cars warm in cold weather. Travelers cannot have failed to notice the attachments in large stations for this purpose. Then the use of gas for lighting cars has led to the installation of gas plants at terminal points, from which the gas is piped alongside the tracks and the tanks on the cars are filled as required.

and the building of a more solid and level roadbed has improved operating conditions considerably and has to a certain extent prevented the terrible loss of life and property which characterized railroad wrecks during the era of lighter equipment, yet accidents still happen from time to time, as any reader of the daily press cannot fail to note. Collisions occur even to-day. Trains are derailed,



SPIRAL TUNNEL TO REDUCE GRADE

In the middle distance will be seen the openings of a spiral tunnel, cut into the mountain to secure distance and reduce grade.

Still another installation has been found necessary in connection with the vacuum cleaning of passenger coaches, which is now carried on regularly wherever cars are stored. In all three cases the railroad companies have had to go to big expense to maintain the service. Besides this the construction of cars with vestibules has been the cause of sending a lot of the old cars to the scrap heap, because on the finer trains only vestibuled coaches are used.

While the use of heavier rolling stock

Mishaps of various kinds frequently happen. There is still need for the wrecking train, of which Kipling sings so realistically,

"Oh, the Empire State must learn to wait
And the Cannon-ball go hang;
When the West-bound's ditched, and
the tool-car's hitched
And it's 'way for the Breakdown
Gang (Tara-ra)
'Way for the Breakdown Gang!"

But the old auxiliary which could tackle a wreck successfully not so many years ago, has been sent to the scrap heap long ere this. Its little hand crane, which could swing up a locomotive from the ditch in those days, would be quite useless to-day when engines commonly weigh 75 to 100 tons, and cars 50 to 75 tons. The railroad companies have had to provide each divisional point on their lines with those big six, seventy-five or one hundred ton steam cranes, which are now dispatched to the scene of wrecks. Their introduction became absolutely necessary when the day of heavier rolling stock dawned. And it will always be the same whenever engines or cars exceed in weight the capacity of the cranes.

A somewhat similar situation was created when the new standard freight car was backed up by the yard engine on the old 40 ton car scale. It simply wouldn't fit and in one moment every scale on the road was rendered practically useless. A wholesale discarding of the old scales became necessary and at every important shipping point or wherever cars are weighed, new scales had to be installed. Their capacity now extends from one hundred to one hundred and fifty tons. In fact so powerful are they, that engines can be run right over them without requiring a dead rail to relieve the extra load. This is a great and an expensive change from the old twenty ton scale and is as good an illustration as any of what the railway revolution of recent years involves in the matter of incidental equipment.

But this is by no means all. A few years ago every freight shed in the country of any size was built with floors at thirty-three foot intervals, the object being that when a train of cars was run in on the siding alongside, the doors of the cars would be exactly opposite the doors of the shed. As soon as the bigger and longer freight cars were introduced, it was found that this result was no longer attained and while it was hardly a big enough defect to render the freight shed no longer serviceable, yet it was so inconvenient that in some sheds, the old doors were knocked out and new continuous doors substituted. These doors are operated between posts, which stand at intervals down the entire length of the

shed. In this way, no matter where the door of a car come, it will always be directly opposite a door in the shed. All new freight sheds in Canada of any size are now being built with the continuous doors on the track side.

One other result of the advent of the big engine and its train of larger cars was the construction of longer meeting tracks, or sidings, at all stations. The old train, consisting of fifteen or twenty thirty-three foot cars, could draw up on a three hundred and fifty yard siding and allow a train running in the opposite direction to pass quite comfortably. But, the present-day train of fifty to one hundred freight cars, would have to do some strange juggling (or "sawing-by" as the trainmen call it) to accomplish the same result on the same siding. Before the longer trains could run properly, every station had to be provided with two or three times the length of siding it already possessed and this in itself was no inconsiderable undertaking.

There are many other directions in which changes have been made necessary. The use of trestles and elevators for handling coal cars has made the old-style coal car useless. It has been superseded by the new self-unloading style of car. An automatic device for handling the ashes dumped from locomotives has done away with the old ash pit and the shovelling of ashes. Automatic couplers have put the old link and pin coupling out of business with the result that on only about twelve per cent. of the cars in the country is the old-style coupling now used. The "new rail roadster" is not conspicuous by the loss of fingers and the old timers look upon them as "dudes."

Incidental to the introduction of so many new automatic devices in the operation of trains, the larger roads have had to go to the expense of equipping special instruction cars with these appliances, which are used to teach new employees how to handle them. They have also equipped cars with instruments to show the drawing power of engines and to determine the outline dimensions to which freight cars may be loaded without coming to grief against bridge abutments, the sides of tunnels, etc. All these have been rendered necessary by the use of new and improved methods of railroading.

A Ramble in Aphasia

By

O. Henry

MY WIFE and I parted on that morning in precisely our usual manner. She left her second cup of tea to follow me to the front door. There she plucked from my lapel the invisible strand of lint (the universal act of woman to proclaim ownership) and bade me take care of my cold. I had no cold. Next came her kiss of parting—the level kiss of domesticity flavored with Yeang Hyson. There was no fear of the extemporaneous, of variety spicing her infinite custom. With the deft touch of long malpractice, she dabbed away my well-set scarf pin; and then, as I closed the door, I heard her morning slippers pattering back to her cooling tea.

When I set out I had no thought or premonition of what was to occur. The attack came suddenly.

For many weeks I had been toiling, almost night and day, at a famous railroad law case that I won triumphantly but a few days previously. In fact, I had been digging away at the law almost without cessation for many years. Once or twice good Doctor Volney, my friend and physician, had warned me.

"If you don't slacken up, Bellford," he said, "you'll go suddenly to pieces. Either your nerves or your brain will give way. Tell me, does a week pass in which you do not read in the papers of a case of aphasia—of some man lost, wandering nameless, with his past and his identity hotted out—and all from that little brain clot made by overwork or worry?"

"I always thought," said I, "that the clot in those instances was really to be found on the brains of the newspaper reporters."

Doctor Volney shook his head.

"The disease exists," he said. "You need a change or a rest. Court-room,

office and home—there is the only route you travel. For recreation you—read law books. Better take warning in time."

"On Thursday nights," I said, defensively, "my wife and I play cribbage. On Sundays she reads to me the weekly letter from her mother. That law books are not a recreation remains yet to be established."

"That morning as I walked I was thinking of Doctor Volney's words. I was feeling as well as I usually did—possibly in better spirits than usual.

I awoke with stiff and cramped muscles from having slept long on the uncomfortable seat of a day coach. I leaned my head against the seat and tried to think. After a long time I said to myself: "I must have a name of some sort." I searched my pockets. Not a card; not a letter; not a paper or monogram could I find. But I found in my coat pocket nearly \$3,000 in bills of large denomination. "It must be some one, of course," I repeated to myself, and began again to consider.

The car was well crowded with men, among whom, I told myself, there must have been some common interest, for they intermingled freely, and seemed in the best good humor and spirits. One of them—a stout, spectacled gentleman enveloped in a decided odor of cinnamon and aloes—took the vacant half of my seat with a friendly nod, and unfolded a newspaper. In the intervals between his periods of reading, we conversed, as travelers will, on current affairs. I found myself able to sustain the conversation on such subjects with credit, at least to my memory. By and by my companion said:

"You are one of us, of course. Fine lot of men the West sends in this time.

I'm glad they held the convention in New York; I've never been East before. My name's R. P. Bolder—Bolder & Son, of Hickory Grove, Missouri."

Though unprepared, I rose to the emergency, as men will when put to it. Now must I hold a christening, and be at once babe, parson and parent. My senses came to the rescue of my slower brain. The insistent odor of drugs from my companion supplied one idea; a glance at his newspaper, where my eye met conspicuous advertisement, assisted me further.

"My name," said I, glibly, "is Edward Pinkhammer. I am a druggist, and my home is in Cornopolis, Kansas."

"I knew you were a druggist," said my fellow traveler, affably. "I saw the callous spot on your right forefinger where the handle of the pestle rubs. Of course, you are a delegate to our National Convention."

"Are all these men druggists?" I asked, wondering.

"They are. This car came through from the West. And they're your old-time druggists, too—none of your patent tablet-and-granule pharmacopoeias that use slot machines instead of a prescription desk. We necedate our own paregoric and roll our own pills, and we ain't above handling a few garden seeds in the spring, and carrying a side line of confectionery and shoes. I tell you Hamppiker, I've got an idea to sojourn on this convention—now ideas is what they want. Now, you know the shelf bottles of tartar emetic and Rochelle salt Ant. et Pot. Tart. and Sod. et Pot. Tart.—one's poison, you know, and the other's harmless. It's easy to mistake one label for the other. Where do druggists mostly keep 'em? Whv, as far smart as possible, on different shelves. That's wrong. I say keep 'em side by side, so when you want one you can always compare it with the other and avoid mistakes. Do you catch the idea?"

"It seems to me a very good one," I said.

"All right! When I sojourn it on the convention you back it up. We'll make some of these Eastern orange-phosphate-and-massage-cream professors that think they're the only lozenges in the market look like bromodermic tablets."

"If I can be of any aid," I said, warning, "the two bottles of — or —"

"Tartrate of antimony and potash, and tartrate of soda and potash."

"Shall henceforth sit side by side," I concluded, firmly.

"Now, there's another thing," said Mr. Bolder. "For an excipient in manipulating a pill mass which do you prefer—the magnesia carbonate or the pulverized glycerhiza radia?"

"The—or magnesia," I said. It was easier to say than the other word.

Mr. Bolder glanced at me distrustfully through his spectacles.

"Give me the glycerhiza," said he. "Magnesia cakes."

"Here's another one of those fake aphasia cases," he said, presently, handing me his newspaper, and laying his finger upon an article. "I don't believe in 'em. I put nine out of ten of 'em down as frauds. A man gets sick of his business and his folks and wants to have a good time. He skips out somewhere, and when they find him he pretends to have lost his memory—don't know his own name, and won't even recognize the strawberry mark on his wife's left shoulder. Aphasia! Tut! Why can't they stay at home and forget?"

I took the paper and read, after the pungent head-lines, the following:

"DENVER, JUNE 12.—Elwyn C. Bellford, a prominent lawyer, is mysteriously missing from his home since three days ago, and all efforts to locate him have been in vain. Mr. Bellford is a well-known citizen of the highest standing, and has enjoyed a large and lucrative law practice. He is married and owns a fine home and the most extensive private library in the State. On the day of his disappearance, he drew quite a large sum of money from his bank. No one can be found who saw him after he left the bank. Mr. Bellford was a man of singularly quiet and domestic tastes, and seemed to find his happiness in his home and profession. If any clue at all exists to his strange disappearance, it may be found in the fact that for some months he has been deeply absorbed in an important law case in connection with the Q. Y. and Z. Railroad Company. It is feared that over-

work may have affected his mind. Every effort is being made to discover the whereabouts of the missing man."

"It seems to me you are not altogether uneynized, Mr. Bolder," I said, after I had read the despatch. "This has the sound, to me, of a genuine case. Why should this man, prosperous, happily married and respected, choose suddenly to abandon everything? I know that these lapses of memory do occur, and that men do find themselves adrift without a name, a history or a home."

"Oh, gammon and jalap!" said Mr. Bolder. "It's larks they're after. There's too much education nowadays. Men know about aphasia, and they use it for an excuse. The women are wise, too. When it's all over they look you in the eye, as scientific as you please, and say: 'He hypnotized me.'"

Thus Mr. Bolder diverted, but did not aid, me with his comments and philosophy.

We arrived in New York about ten at night. I rode in a cab to a hotel, and I wrote my name "Edward Pinkhammer" in the register. As I did so I felt pervade me a splendid, wild, intoxicating buoyancy—a sense of unlimited freedom, of newly attained possibilities. I was just born into the world. The old fetters—whatever they had been—were stricken from my hands and feet. The future lay before me a clear road such as an infant enters, and I could set out upon it equipped with a man's learning and experience.

I thought the hotel clerk looked at me five seconds too long. I had no baggage. "The Druggists' Convention," I said. "My trunk has somehow failed to arrive." I drew out a roll of money.

"Ah!" said he, showing an auriferous tooth, "we have quite a number of the Western delegates stopping here." He struck a bell for the boy.

I endeavored to give color to my role.

"There is an important movement on foot among us Westerners," I said, "in regard to a recommendation to the convention that the bottles containing the tartrate of antimony and potash, and the tartrate of sodium and potash be kept in a contiguous position on the shelf."

"Gentleman to three-fourteen," said the clerk, hastily. I was whisked away to my room.

The next day I bought a trunk and clothing, and began to live the life of Edward Pinkhammer. I did not tax my brain with endeavors to solve problems of the past.

It was a piquant and sparkling cup that the great island city held up to my lips. I drank of it gratefully. The keys of Manhattan belong to him who is able to bear them. You must be either the city's guest or its victim.

The following few days were as gold and silver. Edward Pinkhammer, yet counting back to his birth by hours only, knew the rare joy of having come upon so diverting a world full-fledged and unrestrained. I sat entranced on the magic carpets provided in theatres and roof-gardens, that transported one into strange and delightful lands full of frolicsome music, pretty girls and grotesque, drolly extravagant parodies upon human kind. I went here and there at my own dear will, bound by no limits of space, time or compartment. I dined in weird cabarets, at weird tables d'hotel to the sound of Hungarian music and the wild shouts of mercurial artists and sculptors. Or, again, where the night life quivers in the electric glare like a kinesiographic picture, and the millinery of the world, and its jewels, and the ones whom they adorn, and the men who make all three possible are met for good cheer and the spectacular effect. And among all these scenes that I have mentioned I learned one thing that I never knew before. And that is that the key to liberty is not in the hands of License, but Convention holds it. Conity has a toll-gate at which you must pay, or you may not enter the land of Freedom. In all the glitter, the seeming disorder, the parade, the abandon, I saw this law, unobtrusive, yet like iron, prevail. Therefore, in Manhattan you must obey these unwritten laws, and then you will be freest of the free. If you decline to be bound by them, you put on shackles.

Sometimes, as my mood urged me, I would seek the stately, softly murmuring palm rooms, redolent with high-born life and delicate restraint, in which to dine. Again I would go down to the waterways in steamers packed with vociferous, be-

docked, unchecked love-making clerks and shop-girls to their crude pleasures on the island shores. And there was always Broadway—glittering, opulent, wily, varying, desirable Broadway—growing upon one like an opium habit.

One afternoon as I entered my hotel a stout man with a big nose and a black mustache blocked my way in the corridor. When I would have passed around him, he greeted me with offensive familiarity.

"Hallo, Belford!" he cried, loudly. "What the deuce are you doing in New York? Didn't know anything could drag you away from that old book den of yours. Is Mrs. B. along or is this a little business run alone, eh?"

"You have made a mistake, sir," I said, coldly, releasing my hand from his grasp. "My name is Pinkhammer. You will excuse me."

The man dropped to one side, apparently astonished. As I walked to the clerk's desk I heard him call to a bell boy and say something about telegraph blanks.

"You will give me my bill," I said to the clerk, "and have my baggage brought down in half an hour. I do not care to remain where I am annoyed by confidence men."

I moved that afternoon to another hotel, a sedate, old-fashioned one on lower Fifth Avenue.

There was a restaurant a little way off Broadway where one could be served almost *à la carte* in a tropic array of screening flora. Quiet and luxury and a perfect service made it an ideal place in which to take luncheon or refreshment. One afternoon I was there picking my way to a table among the ferns when I felt my sleeve caught.

"Mr. Belford!" exclaimed an amazing-ly sweet voice.

I turned quickly to see a lady seated alone—a lady of about thirty, with exceedingly handsome eyes, who looked at me as though I had been her very dear friend.

"You were about to pass me," she said, accusingly. "Don't tell me you did not know me. Why should we not shake hands—at least once in fifteen years?"

I shook hands with her at once. I took a chair opposite her at the table. I

summoned with my eyebrows a hovering waiter. The lady was philandering with an orange ice. I ordered a *creme de menthe*. Her hair was reddish bronze. You could not look at it, because you could not look away from her eyes. But you were conscious of it as you are conscious of sunset while you look into the profundities of a wood at twilight.

"Are you sure you know me?" I asked. "No," she said, smiling, "I was never sure of that."

"What would you think," I said, a little anxiously, "if I were to tell you that my name is Edward Pinkhammer, from Cornopolis, Kansas?"

"What would I think?" she repeated, with a merry glance. "Why, that you had not brought Mrs. Belford to New York with you, of course. I do wish you had. I would have liked to see Marian." Her voice lowered slightly—"You haven't changed much, Edwyn."

I felt her wonderful eyes searching mine and my face more closely.

"Yes, you have," she amended, and there was a soft, exultant note in her latest tones; "I see it now. You haven't forgotten. You haven't forgotten for a year or a day or an hour. I told you you never could."

I poked my straw anxiously in the *creme de menthe*.

"I'm sure I beg your pardon," I said, a little uneasy at her gaze. "But that is just the trouble. I have forgotten. I've forgotten everything."

She flouted my denial. She laughed deviously at something she seemed to see in my face.

"I've heard of you at times," she went on. "You're quite a big lawyer out West—Denver, isn't it, or Los Angeles? Marian must be very proud of you. You knew, I suppose, that I married six months after you did. You may have seen it in the papers. The flowers alone cost two thousand dollars."

She had mentioned fifteen years. Fifteen years is a long time.

"Would it be too late," I asked, somewhat timorously, "to offer you congratulations?"

"Not if you dare do it," she answered, with such fine intrepidity that I was silent, and began to crease patterns on the cloth with my thumb nail.

"Tell me one thing," she said, leaning toward me rather eagerly—"a thing I have wanted to know for many years—just from a woman's curiosity, of course—have you ever dared since that night to touch, smell or look at white roses—at white roses wet with rain and dew?"

I took a sip of *creme de menthe*. "It would be useless, I suppose," I said, with a sigh, "for me to repeat that I have no recollection at all about these things. My memory is completely at fault. I need not say how much I regret it."

The lady rested her arms upon the table, and again her eyes disdained my words and went traveling by their own route direct to my soul. She laughed softly, with a strange quality in the sound—it was a laugh of happiness—yes, and of content—and of misery. I tried to look away from her.

"You lie, Edwyn Belford," she breathed, blithely. "Oh, I know you lie!"

I gazed duly into the ferns.

"My name is Edward Pinkhammer," I said. "I came with the delegates to the Druggists' National Convention. There is a movement on foot for arranging a new position for the bottles of tartrate of antimony and tartrate of potash, which, very likely, you would take little interest in."

A shining landau stopped before the entrance. The lady rose. I took her hand, and bowed.

"I am deeply sorry," I said to her. "That I cannot remember. I could explain, but fear you would not understand. You will not concede Pinkhammer; and I really cannot at all conceive of the roses and other things."

"Good-by, Mr. Belford," she said, with her happy, sorrowful smile, as she stepped into her carriage.

I attended the theatre that night. When I returned to my hotel, a quiet man in dark clothes, who seemed interested in rubbing his finger nails with a silk handkerchief, appeared, magically, at my side.

"Mr. Pinkhammer," he said, casually, giving the bulk of his attention to his forehead, "may I request you to stop aside with me for a little conversation? There is a room here."

"Certainly," I answered. He conducted me into a small, private parlor. A lady and a gentleman were

there. The lady, I surmised, would have been unusually good-looking had her features not been clouded by an expression of keen worry and fatigue. She was of a style of figure and possessed coloring and features that were agreeable to my fancy. She was in a traveling dress; she fixed upon me an earnest look of extreme anxiety, and pressed an unsteady hand to her bosom. I think she would have started forward, but the gentleman arrested her movement with an authoritative motion of his hand. He then came, himself, to meet me. He was a man of forty, a little gray about the temples, and with a strong, thoughtful face.

"Belford, old man," he said, cordially, "I'm glad to see you again. Of course we know everything is all right. I warned you, you know, that you were overdoing it. Now, you'll go back with us, and be yourself again in no time."

I smiled ironically. "I have been 'Belforded' so often," I said, "that it has lost its edge. Still, in the end, it may grow wearisome. Would you be willing at all to entertain the hypothesis that my name is Edward Pinkhammer, and that I never saw you before in my life?"

Before the man could reply a wailing cry came from the woman. She sprang past his detaining arm. "Edwyn!" she sobbed, and cast herself upon me, and, clung tight. "Edwyn," she cried again, "don't break my heart. I am your wife—call my name once—just once! I could see you dead rather than this way."

I unwound her arms respectfully, but firmly.

"Madam," I said, severely, "pardon me if I suggest that you accept a resemblance too precipitantly. It is a pity," I went on, with an amused laugh, as the thought occurred to me, "that this Belford and I could not be kept side by side upon the same shelf like tartrates of sodium and antimony for purposes of identification. In order to understand the allusion," I concluded airily, "it may be necessary for you to keep an eye on the proceedings of the Druggists' National Convention."

The lady turned to her companion, and grasped his arm.

"What is it, Doctor Volney? Oh, what is it?" she moaned.

He led her to the door.

"Go to your room for a while," I heard him say. "I will remain and talk with him. His mind? No, I think not—only a portion of the brain. Yes, I am sure he will recover. Go to your room and leave me with him."

The lady disappeared. The man in dark clothes also went outside, still manœuvring himself in a thoughtful way. I think he waited in the hall.

"It would like to talk with you a while, Mr. Pinkhammer, if I may," said the gentleman who remained.

"Very well, if you care to," I replied, "and will excuse me if I take it comfortably; I am rather tired." I stretched myself upon a couch by a window and lit a cigar. He drew a chair nearby.

"Let us speak to the point," he said, soothingly. "Your name is not Pinkhammer."

"I know that as well as you do," I said, coolly. "But a man must have a name of some sort. I can assure you that I do not extravagantly admire the name of Pinkhammer. But when one christens one's self suddenly, the fine names do not seem to suggest themselves. But, suppose it had been Scheringhausen or Scroggins! I think I did very well with Pinkhammer."

"Your name," said the other man, seriously, "is Elwyn C. Belford. You are one of the first lawyers in Denver. You are suffering from an attack of aphasia, which has caused you to forget your identity. The cause of it was over-application to your profession, and, perhaps, a life too bare of natural recreation and pleasures. The lady who has just left the room is your wife."

"She is what I would call a fine-looking woman," I said, after a judicial pause. "I particularly admire the shade of brown in her hair."

"She is a wife to be proud of. Since your disappearance, nearly two weeks ago, she has scarcely closed her eyes. We

learned that you were in New York through a telegram sent by Isidore Newman, a traveling man from Denver. He said that he had met you in a hotel here, and that you did not recognize him."

"I think I remember the occasion," I said. "The fellow called me 'Belford,' if I am not mistaken. But don't you think it about time, now, for you to introduce yourself?"

"I am Robert Volney—Doctor Volney. I have been your close friend for twenty years, and your physician for fifteen. I came with Mrs. Belford to trace you as soon as we got the telegram. Try, Elwyn, old man—try to remember!"

"What's the use to try?" I asked, with a little frown. "You say you are a physician. Is aphasia curable? When a man loses his memory does it return slowly, or suddenly?"

"Sometimes gradually and imperfectly; sometimes as suddenly as it went."

"Will you undertake the treatment of my case, Doctor Volney?" I asked.

"Old friend," said he, "I'll do everything in my power, and will have done everything that science can do to cure you."

"Very well," said I. "Then you will consider that I am your patient. Everything is in confidence now—professional confidence."

"Of course," said Doctor Volney.

I got up from the couch. Some one had set a vase of white roses on the centre table—a cluster of white roses, freshly sprinkled and fragrant. I threw them far out of the window, and then I laid myself upon the couch again.

"It will be best, Bobby," I said, "to have this cure happen suddenly. I'm rather tired of it all, anyway. You may go now and bring Marian in. But, oh, Doc," I said, with a sigh, as I kicked him on the shin—"good old Doc — it was glorious!"

Honorable 'Sam' Blake

By

G. H. Maitland

A KEEN-EYED old man with an inevitable silk hat goes daily up the steps of the Bank of Commerce Building, in Toronto. He is the Honorable Samuel Hume Blake, the outstanding layman of the Church of England in Canada, the oldest, and probably the best-known, of the great counsel of the Dominion, her most brilliant exponent of repartee, and one of the few men who have become known from coast to coast without entering either Parliament or Legislature. He is Blake the Crusader, the man with the most scorching tongue, but withal one of the most loving hearts, in all Canada.

All Canada knows his history and what he stands for; how he rose steadily and unseasonably from one thing to another until the country came to recognize him as one of its great men—great in himself, not for any affiliation with one political cause or another, nor for the deeds which commonly distinguish army men, but for a quality more rare—a certain worth in the man himself, his sanity and his deep sincerity.

Once, in a Synod meeting he had been flaying a clergyman who was what he called a "Jimmie Dumps of a man," a moaning, groaning individual who had neglected to take up some of the collections which the Synod had ordered. Leaving the church shortly afterwards, a prominent Anglican ventured to intimate to Mr. Blake that he had hit the fellow pretty hard. "Have I?" queried the culprit; and then, with a twinkle in his eye, "Do you know, my friend, I sometimes think I don't get credit for the things I do not say." That is a Blakeism, and perhaps a reasonable contention.

At any rate, Mr. Blake comes honestly by one of the most meretricious tongues that ever denounced high finance, high church or nigger critics. These are his three pet aversions. His father, the late Hon. W. H. Blake, has been described as the man whose speech set fire to the Parliament Buildings at Montreal, and the story throws such light upon the character of the son that it is worth recalling. Sir Allan MacNab had stigmatized the French-Canadians as rebels. Mr. Blake, who was a bitter opponent of the family compact, retorted that there was such a thing as rebellion against the constitution, as well as against the Crown, and intimated that Sir Allan was himself a rebel. In fact, he did more than intimate it. He asserted it, and refused to retract. His address was so stinging that MacNab was goaded to fury, and only the interference of the sergeant-at-arms prevented a personal encounter. Tradition has it that Sir Allan challenged his opponent to a duel; at any rate, the speech has gone down in history as one of the most scathing in the annals of Canada. When a gang of rioters set fire to the Parliament Buildings in 1849, there were those who attributed the act to the bitterness aroused by Mr. Blake's castigation.

There are two things about the early life of his son, Samuel, which are generally forgotten. One of these is the fact that he spent four weary years in the commercial establishment of Ross, Mitchell & Company, Toronto. The other is the circumstance of his having been a boy circumlocutionist. In the public school he was the wonder and object of emulation of his classmates in this respect; one of those prodigies, apparently, whose shrill declam-



ations are the pride of their teachers and the dread of the public. But he upset all precedents by growing to a maturity as promising as his boyhood. And then, for some unaccountable reason, he felt drawn towards mercantile life. It was like caging an eagle. He left commerce for the law, and in his new profession he became an immediate success.

There are but few families in which father and two sons bear the title of "Honorable," but the Blakes form an exception. The law partnership consisted of Edward and Samuel, the former now known the Empire over as the Hon. Edward Blake. Samuel, at the age of thirty-seven, was in receipt of an annual professional income of \$15,000, which was a larger sum then than now, and large enough even yet. And then, in 1872, he did an inexplicable thing, and accepted the Vice-Chancellorship of Ontario, at the hands of Sir John A. Macdonald, a political opponent, the salary attached being a mere \$5,000. His father had been Chancellor of Upper Canada, and the lure of chancellorships was apparently strong. But Mr. Blake probably took the position because of failing health. Relieved of his private practice, he gradually became his physical self again, retired from the bench in 1881, and now, at the age of seventy-five, is able to do a big day's work every day in his capacity of head of the firm of Blake, Laeb, Anglin & Cassels. He is one of four living Ontario judges who have retired from the bench, his colleagues in this respect being Justice Mahoe, who left the bench for the Railway Commission; Justice Osler, who retired from Court of Appeal, and Justice MacLennan, who retired from Supreme Court. It is from his Vice-Chancellorship that Mr. Blake derives his courtesy title of "Honorable."

But the Blake tongue and the Blake pen are far more interesting than the Blake history. Mr. Blake is widely known as a lawyer, but to the people of Canada he is first of all a crusader, and in his crusades he spares no opponent. He has the faculty for saying things that sting. He once referred to a certain stalwart, but hardly eminent, member of his profession by asking a friend to "think what the police force missed in that man." He it was who counselled an audience not to take editors too seriously. "They are only

fellows with a little more paper than you have." Casual acquaintances are at once struck with his vigorous and distinctive personality. President Taft, who met him at Murry Bay during one of the summers spent there, often enquires after him when he meets Toronto people.

It was at Murray Bay that there occurred an incident of which Mr. Blake has probably never been told. High church is his bete noir. He has not been noted for attacks upon the Roman Catholic Church, but he is an uncompromising fighter of what he calls the Rome within his own. He has written pamphlets that almost burned the fingers of their readers, so bitterly did they denounce certain Anglicans whom he accuses of un-Protestant teachings. At Murray Bay there was a little Protestant church, and Mr. Blake occasionally took the services. Three of the Blakes had cottages at the place, and a visitor who asked to be taken to Mr. S. H. Blake's residence had some difficulty in making the habilitant driver understand. At last, however, a great light broke upon the native. "Bien!" he exclaimed, "Mees-ter Blake qui chante la messe dans la chapelle." And if Mr. Blake had known that he was accused of conducting mass in the chapel, he would have glared the unfortunate habilitant out of existence.

On his way from Murray Bay to Toronto, once, he figured in an amusing incident which has since become a classic. He was taking dinner in the railway restaurant at Montreal, and, being quite hungry, picked up the bill of fare with some satisfaction.

"A little soup, please," he said to the waitress.

The girl was gone some time, and returned rather shame-facedly. "I'm sorry," she said, "but the soup is all gone. What will you have?"

"A little fish, if you please," said the traveler.

There was more delay. At last the girl came back, looking more put out than ever. "I am sorry, but the fish is all gone, too," she explained.

Mr. Blake regarded her with mixed emotions. "Ah, I see, my dear," he said. "This card you gave me is a list of the things you have not got. Please bring me a list of the things you have."



HON. S. H. BLAKE, K.C.

His hatred for any custom which could be construed as un-Protestant recalls his celebrated comment upon a certain building in Toronto, which had been erected by a bank of which the directorate is largely Roman Catholic. "Fine architecture; pure Greek," said a friend. "Yes," assented Mr. Blake, "pure Greek without, and pure Roman within."

The man scintillates with such sayings. "At any gathering, the head of the table is where Blake is," was the description vouchsafed recently by an intimate. He sometimes interjects remarks at critical moments which will at once restore good humor. On the other hand, he is just as likely to say something that will make some other man of less ready tongue desirous of assassinating him. He has no patience with the cloth. "Ah!" he remarked significantly, when a chronic late-comer entered a committee meeting, "the last. Of course, someone always has to be last, but why should it always be the same one?" This is a question which many people have asked themselves without venturing to ask it of the offender.

On another occasion Mr. Blake listened rather impatiently to a speaker whose argument was logically a non-sequencer. "It reminds me," he declared at last, "of the fellow who was asked if he could speak French, and who said, No, but I have a cousin who plays the German flute."

Such witticisms as these have convulsed the Synod on many occasions. It was there that a wild Irish clergyman was attacking the diocesan mission fund. He wound up with what he considered a poser as well as a peroration. "Now, how are you going to cover the ground?" he asked. "Tell me, how are you going to cover the ground?" Mr. Blake looked at him solemnly over his spectacles. "Roll over it," he shouted, "roll over it," and the Synod could contain itself no longer.

With such men of little faith, Mr. Blake has not much patience, for he is himself a man who can do things and get things done. The General Board of Missions came into being largely by his effort some eight years ago. He is a giver of wonderful liberality. On that occasion he heartened up a rather dreary situation by subscribing a thousand dollars for the needs of Keewatin, and he has again and again taken the lead in similar cases. It is,

indeed, impossible to estimate how much he gives to churches and to charity in the course of a year. He is continually sending subscriptions to needy causes without saying anything about it. He has practically made Wycliffe College, being its treasurer, and incidentally its champion, almost from its inception. He was one of the founders of the Y. M. C. A. in Toronto, and a large subscriber to its funds. His subscriptions carry others with them, for he masters the situation before he speaks, and he is able to give the best of reasons for his actions. A friend said of him that in a meeting he is generally the man most intimately acquainted with the subjects under discussion, with the exception, perhaps, of the secretary.

These in the humbler walks of life could tell thousands of stories of his kindness. He always has a good word for the porter on the train, the bellboy in the hotel, the elevator man and the coachman. "They don't get much pleasure out of life," he remarked one day—as though such acts needed excusing—"and perhaps it will give them something to think about." At a summer resort, where he was staying, he chartered a launch for two days, and took out in it the very people who were apparently not having as good a time as others. And he is able to do all these things without the fatal air of appearing to patronize. His youthful buoyancy, and his wonderful spirit of enthusiasm, carry him through delicate situations with flying colors.

He has always been a strong advocate of the temperance cause, and this lends the more interest to two whiskey stories which he tells of the days he spent on circuit during his term on the bench. One is about a man in Goderich who was noted for his indulgence in intoxicants. He reeked of them. This character was talking with a crowsy from Kincardine, further up the lake, when the following dialogue took place:

Goderich Man—"Well, is there much excitement in Kincardine these days?"

Kincardine Man—"No; only when we open a barrel of whiskey, or when the wind blows from Goderich way—that's much the same, though."

Another anecdote which has to do directly with Mr. Blake's experience on the bench concerns a certain gentleman who

acted as clerk of the court pro tem, the regular occupant of that office having fallen ill. The case being tried was one in which the plaintiff was having difficulty in recovering the price of certain work, because, as the defence alleged, he was drunk when he did it. His counsel, however, put forward the rather ingenious argument that he was not at his best until he had two or three drinks in him, and that he, therefore, did the work in his most efficient manner. A witness was put in the box to prove this, and when the acting clerk read out the transcript of his evidence, he had summed it all up neatly as follows:

"Mr. Blank, sworn, said that the plaintiff was never sober until he was drunk."

Mr. Blake—said nothing, orally.

Reference has already been made to the Hon. Samuel's evasion of political contests, but this does not imply that he has refrained from political controversy. He has spoken and written of things political in a way that has invariably drawn attention. His support of the Liberal cause on the platform has demonstrated his wonderful eloquence as a public speaker, and his defiance of party in 1905 had at least something to do with the defeat of the Ross Government. His letter to "My Dear Boy," now Attorney-General of Ontario, the missive wherein he denounced the practice of Ontario's Cabinet, it still quoted with delight. Quite as severe have been his arraignments, printed and spoken, of those who put a liberal interpretation on the Bible, for his theology is conservative in the extreme. For high finance he has nothing but disrespect. On one occasion he declared that Cobalt had resulted in so much lying, deceit, fraud, over-reaching ambition and in such a Pandora's box of miseries, that it would almost have been better if the place had never been discovered.

Among the objects of his earlier activities was a Sunday school class for teachers, which became celebrated the country over. For thirty years he was actively interested in this branch of work. He was in England once, as a delegate to

an international Sunday school convention, and arrived at the place of meeting without a badge. The door was guarded by a policeman.

"Where is your ticket?" asked the officer.

"I forgot it," said Mr. Blake. "Well, I have instructions to see that no one without a ticket goes in," the constable explained.

"Then, turn the other way, my good man, and you won't see me," said Mr. Blake, and taking the officer gently, but firmly, by the shoulder, he wheeled him around and walked past.

As already noted, he is not imbued with a vast respect for editors, and reporters sometimes find him equally diffident. On one occasion he appeared quietly in a case which was exciting some attention, and a newspaperman ventured to enquire as to what client he represented.

"Say it again; I'm deaf this morning," suggested Mr. Blake.

"The reporter said it."

"Say it again; I'm very deaf."

The question was repeated even more loudly than before.

"Say it again," urged the lawyer.

By this time people in the corridor were stopping to listen, but the reporter howled it out once again.

"Oh," said Mr. Blake, as though realizing the import of the enquiry for the first time. "Well, I'm dumb, too."

But the great counsel, the last of the great counsels of his day, has a great heart. He is full of the most unexpected kindnesses. The newspapermen were caricaturing him during the case in question, and a fellow-lawyer passed him one of the drawings. An explosion was expected, but it did not come. Instead, came Mr. Blake himself, with a word of good-natured encouragement, and the advice to read the books of Cartoonist Furness.

He is a curiously complex character; a man whose personality will always attract notice, and whose deeds and sayings are bound to have a real place in Canadian history.

For "West Is West" and So On

By

Augustus Bridle

A COUPLE of years ago in the city of Winnipeg—where one may learn the primer of most that is good, bad and indifferent in the Canadian West—there was a poor but honest man who was struggling to support a family on a mediocre salary without investing in real estate or going into speculation of any sort. He was a man of some intellect and a casual caustic wit. His employer was one of those vanishing old-timers to whom Winnipeg and any town that has been a fur post and is now a young yearning city, owes a big debt. He also professed to be a poor man who had been familiar with Portage Avenue when a lot at the corner of Portage and Main could have been purchased for a hundred dollars; said land, at this time of which we write, being worth about two thousand dollars a foot frontage. But the boss's chief regret was—not that he had not bought these lots at a hundred dollars apiece and sold them at two thousand a foot; but that Winnipeg was fast losing its ideals—not Winnipeg and the West alone but the whole God-forsaken country—since he had been a young man.

"Oh yes, Tom's a pretty good joker," remarked the young man when a visitor friend told him about these natural regrets of his employer. "He's about as good a sample of hypocrite as I know. As a matter of fact he's worth over a hundred thousand in land and he hasn't a real personal ideal in his whole make-up. He's just playing to the gallery. What's the matter with the place? Why, it's got ahead like a house afire; values are going up steadily; everybody agrees that the boom of '81 will never be repeated; people are pouring in—"

He waved his napkin sarcastically.

"Say," returned the visitor friend, "you talk like a British journalist. You've got the average dope. But please don't inflict it on me as a form of wit. This town is real estate rotten. It's land crazy and wheat mad. I hate the ——— place."

He was emphatic and spoke like a sincere man. He even affected to despise most of the people—more particularly those who seemed to be getting rich quick—and the average person in his opinion seemed to be heading in that direction as fast as possible. He had considerable sympathy, however, with the immigrants at the C. P. R. station and the labor unions, and the chaps that held mass meetings on the street corners; and he frequently delivered Sunday afternoon socialistic addresses. When he dined at the Royal Alexandra he had a notion that he was mixing with railway robbers and real estate thugs. He was the making of an anarchist.

"Well," said the host as they shook hands at the train pulling out on the new main line to Edmonton. "Maybe you'll see the real West one of these days. That may give you a different story."

The visitor knew something about the West—but not the modern West. He had lived in Edmonton for a year at the beginning of "Canada's Century" when the fur-post was the beginning to years for a railroad. He had left the town on a trading scow and had seen the Saskatchewan valley when it was just as the trailmen knew it in the days of the Red River cart, the pemican hag and the coffee pot. But this time he arrived in Edmonton by train; and had to rub his eyes to make sure he hadn't descended at the wrong station. The whole place was two storeys higher than it had been seven

years before. Its population had been multiplied by ten. Real estate values had gone up by about a thousand per cent. Every fourth door on the main street was a real estate office; and the log shacks of the old-timers were harder to locate than a full-grown ideal in Winnipeg.

There was an amazing interest in the place. Its transformation from a half-born little town fed by a cable ferry and one iron bridge, to a young city with four-storey buildings and land quoted at a thousand dollars a foot, was enough to have satisfied even the god of Progress. But more remarkable than the place itself was the change in the people. Of course in the West—and sometimes in the East—we are assured that population is the main thing and that people may be left to take care of themselves. And while it was quite evident that Edmonton, like its old rivals Calgary, Regina and Saskatoon, had made as much of a feitch of population as any of them. Still the character of the Edmonton people seemed to be of more interest to one who had known some of them at the beginning of the new century.

Real estate had made most of the difference. In 1901 the men who were able to afford anything but plain little frame houses, half hidden among the poplars, might have been counted once on the fingers. It was so in Calgary and Regina and Brandon and Prince Albert—while in Saskatoon at that time there had been nobody of all its lonesome little four hundred people who had enough to spare for a railway ticket back East where in those days a good many of the western townspeople were hankering to go. But in 1908 the half-hard-up and hopeful people of a few years before had become wealthy. Most of them had sold the old house when the price of land had jumped so that folk began to move out to the suburbs to leave room down town for the real estate offices. Men who had been struggling to pay store bills in 1901 were driving motor cars and living in miniature castles in 1908. They remembered the older Edmonton as a place where they seemed to have spent a few melancholy years of waiting and hanging on—and now, by heavens, they had come into their reward and they proposed to show that they knew a good thing by grabbing all the real estate they

could get their hands on at any reasonable figure, building houses to sell them again, hiring decorators from New York, buying big automobiles, getting their names into the social columns of the daily newspaper, making bridge parties and pink teas, dances and theatre parties and wearing top hats on Sundays.

In Calgary someone told him, he might observe the same symptoms, perhaps exaggerated. The once "cow-town" had more automobiles, warehouses and thousand-dollar-foot lots than the formerly despised city of fur and trappers. And as a matter of fact, in these two contrasted young cities of magnificent promise and potentiality may be traced most of the signs of the times, and the tendencies of things, in the Empire of Wheat which begins west of Kenora and ends far beyond the last mile of new steel. At once, I suppose, someone living in Regina will ask if that old capital is to be given the go-by when it comes to a study of the sociology of the West. Prince Albert will reckon that she was a focus of new westernism even before Edmonton; and Saskatoon may argue that any or all of these were old towns when Saskatoon was no further than the temperance colonization stage. But Calgary and Edmonton suffice. This article does not deal with the mere localisms which constitute the wool of western life. It is concerned rather with what the West used to be and what it is not now.

The visitor in Edmonton was entertained at the miniature castle of a citizen who—one of the earlier "new-timers"—had been rat poor in 1901. This citizen was enthusiastic—of course. He had hung on, and waited and wondered; and when the railway came he had sold his house and lot for twenty thousand and gone in to real estate. He had a partner, a new arrival whom he had "wired up" there because he had money to invest. This man came strolling in; and he said to the visitor at once:

"Well, what do you think of our city? Isn't she a hummer?"

The once Edmontonian squirmed. He had been there precisely seventeen days "Yes, it's a very interesting city."

"Well you bet your boots she is! Say, we've got single tax and civic utilities, street-cars coming next year, more miles of asphalt pavement than—"

"Calgary, of course. Go on."
 "Yes or Regina either. Besides we've got the finest gardens—"
 "Uh—perhaps nature helped you there a trifle."

"Oh, of course; natural advantages. Sunny Alberta you know. We've got just as much chinook wind as we need to keep the frost belt under control and we've none of those sandstorms so common in—"

"Calgary, of course. Just so."

"Ah; I see. You're on. You'll be a booster for this town yet. We've got the liveliest board of trade and the finest prospects for navigation—not such good water as Calgary perhaps but still the very best—and above all things, sir, we've got the record for real estate. I can show you a lot on Jasper Avenue that was bought for fifty dollars twenty years ago, in the fur days. That lot today is worth *fifty—thousand—dollars*."

He shouted it so loud that the echo came back from Strathcona, which he said would be part of Edmonton very soon.

So engrossed did he become that he scarcely saw the box of fifteen-cent cigars being handed round by his senior partner. He was pinching the knee of the ex-Edmontonian—and every pinch spelled, he thought a hundred dollars investment.

But the visitor seemed loquacious.

"Yes, I daresay all you tell me is quite true. I lived in Edmonton myself for a year once."

"And you—chucked it?"

"For personal reasons—yes."

"When you could have got land for fifty dollars a foot?"

"But I wasn't buying land."

"Good heavens! You could have borrowed the money in the East."

"But why should I?"

The new-comer began to reckon that this man was crazy.

"I guess you were an incurable Easterner. I was"—he added comfortingly, "till I struck this town."

"On the contrary—I liked Edmonton in most respects much better than this town in Ontario. But it was the Edmonton of 1901. Edmonton then was much more interesting than the common place sort of community you're trying to tell me about after seventeen days living in it.

Why you haven't even seen a huskie dog; and I'm sure you wouldn't know a buckskin cayuse from a pinto."

The sharklette nipped him on the other knee.

"Say, what are you trying to get through you! This isn't a fur post. This is a city. Talk about Edmonton—being commonplace! Say you've got the wrong hunch, young man."

"One hears just such language in every new town he goes to in this country. It certainly isn't distinctive."

"But my dear sir—"

"I know. You've told me precisely all you know about the town you live in; just because you're talking not about what gives the place its real character as a Canadian city but because you're merely talking real estate—which is mainly the curse of the average western town."

The sharklette became acid.

"Yes, I've heard knockers like you before. By George, it's a wonder a town like this gets ahead at all with such people hanging back on the wheels. Nearly every old-timer you meet grouches just like that. The town was bigger to him than it is now; when it's twenty times as big."

"Because it felt bigger. Isn't that after all the main thing?"

There was no possibility of argument. Each was arguing from a different angle. Perhaps each was wrong. But the visitor who had once lived in Edmonton was remembering what had made the old fur-post before any but an old-timer, a half-breed or a red man ever saw it; just as he remembered what has made Calgary, the cow-town before it was invaded by the main line of the C. P. R. These things were only the day before yesterday to him. Progress had been not only busy but rampant on the prairie. It needed no Kipling to note that. Progress was always the most obvious thing. The West had been the victim of progress even while, in many of its essential phases, it has shown the world what some of the best characteristics of modern progress really are.

No such development ever came to the western towns of the United States which were mapped out before the age of telephones and trolleys and asphalt and municipal ownership. But the cradle of all

the progress made in the first ten years of 'Canada's century' was rocked by a small company of somewhat rude and rough men who got to their doorsteps by means of the Red River cart on the Thousand Mile Trail. Twenty, thirty, and forty years these frontiersmen kept the old towns going when there was nothing to do but buy pelts and do "scratch" farming; or run a gold grizzly on the gravel beach at a dollar and a half a day; or cow-punching or running survey lines with snow and then an old job on a side line of railroad. These men saw the first attempts at colonization. They fought their own battles two thousand miles from home. Mainly from eastern Canada they came before there was any dream of an 'American invasion' or even of immigration from Europe. They were a tough and tireless—if somewhat bigoted—crew; and they had the whole lone land for their parish because they went in by the Thousand-mile trails from trading centre to outpost; and what law and civilization the West had these men gave to it sometimes in violence, mainly in hardship, but always in hope that the day would come when the West should open up to the world.

So it opened. These men saw the influx of peoples at ten times the rate they had dreamed. They saw more development in five years after the railroad struck town than in all the twenty-five years of their efforts before. Naturally they lost the pace. Some of them failed to keep step. They saw new-timers come along and get rolling rich in a few months while they still hung on to the business or the saw-mill or the town lots they happened to have. And they ranked mainly—as mediocrities.

Not altogether, of course. For some of these old-timers are among the wealthiest men in the West; and they know very well how glad they happen to be that the big turn came. But in any new city of the prairie that was once an old fur-post you may find the straggled band of old-timers gradually getting thin and thinner and almost obliterated; and you will find that in their crude way most of these men have the memory of some ideal—a little bigger than a thousand dollars a foot.

So it happened that the visitor—the man who had once been an Edmontonian,

was repatriated in the West. Business kept him there. His friends in the East received, at first, voluminous letters from him, slandering the West. But after awhile there were fewer letters. Such as came were briefer.

Then one day the man who had only gone West for a visit but who had stayed, wired a Toronto friend that he was coming East. They met at an hotel. The "Winnipegman" ordered cocktails. He was rather garrulously dressed and his profanity was of the double-jointed, compound variety. He cursed the cocktails alleging that he could get far better at the "Royal Aleo" in Winnipeg, which by the way, was the best hotel in Canada except possibly the Chateau Frontenac. When he had paid—inisistently—for three he grabbed his Stetson hat and belted for the street. He led his friend at a broncho-busting peec to the corner of King and Yonge, then jostling with the noon-day traffic.

"Good lord," he shouted. "Where are all the people in this town? Is this civic holiday?"

"Well, of course, this isn't Main Street, Winnipeg."

"I should say—it isn't. Say is there any place in this town worth dropping in to? Hmm, Let's go and look at some of the automobiles—though I'll bet a broncho you haven't got a garage in the whole place as good as we're got in the 'Feg.' Great Scott. Why don't these people move? Do they think this is a funeral?"

All the Winnipeg man's desires to get back to the East except for a visit at 'fair time' or Christmas had vanished into thin air. He vowed to the once Edmontonian, that he was an out-and-out Westerner. Winnipeg to him now was the gate of Paradise. He was posted on the price of real estate—and he had got several chunks of it. Very first clean-up he made he would buy a ripping red automobile; next he would build a stunning big house out on the Assiniboine. He had discovered a quality of mind in the Westerners that would save Canada from becoming a nation of dull and diligent people. The wheat crop that year would beat all known records. Most of the crop lived in the East. As to the Canadian navy he had no convictions: didn't care if

there never was a navy or a dollar of contribution for a Dreadnought. He believed in railroads pure and simple, East and West, North and South, over the border, anywhere to get the Westerner's wheat out to the best market and get in manufactured goods as cheap as possible. No, he had no belief in the theory that Western farmers were cropping the land to death. There was more brains in Western farmers than ever there had been on the farms of Ontario. In fact there was no room for argument in his mind. He cared not a continental for what the old-timers had done for the West before railroads went in. He considered them all stick-in-the-muds and it would be a good thing when the last of them had shut up shop.

"And the reason you've turned right about front inside of a year is—?"

"Look here," admitted the man with the Western fever shrewdly lowering his note half an octave, "the whole reason is—if I don't get into the game just the same as the rest of them they'll walk clean over my collar. Into the game! You bet I am. Self preservation is the first law of life. Identity is the second. The only way a man can get recognition for his identity out West—is to do the things the rest of the people are doing, but do them harder."

"And that—is Western."

"Nope. It's just ego. There isn't any West. It—the West I used to know—is buried under real estate. No use kicking about it. Let's have another drink."



YOUR HAIR

I love it with the sunlight kissing it
To warmth and gleaming in a thousand nooks,
Or in the lamplight, touched to a shimmering smoothness,
As you bend over our dear favorite books;
Piled high in glistening curls with velvet bound,
Like some old quaint, and lovely curious crown,
Or touched by your white, magic-working fingers,
In beauteous cataracts, softly falling down.

I know no haven like its silken sweetness,
As we together, watch the fire's glow,
It drapes my shoulder in its clinging glory,
The warmth of it, how I have come to know!
I hide me, and the years of hidden sorrow,
Forget me, in the dreams that come and go!

—Amy E. Campbell.

The Rule of Right

By

Helen E. Williams

IF Hazelton Magill "worked" for the Armistage Hill (so said public opinion) the bill would go through. And early in February, about two weeks before the bill was to come up, word went round that Hazelton Magill was "working." It was a bad moment for those interested. Jimmy Meredith, who had toiled "like a nailer" for the past six weeks, left the caucus of the faithful in deepest dejection.

"It's not, you know," he wailed it out to Fraser Johnson with whom he found himself walking up St. James street in the deepening dusk of the short winter afternoon, "it's not as if he believed in it himself. We haven't even that consolation. Any way you look at it the bill hasn't a leg to stand on."

Fraser Johnson shrugged his shoulders. "Just what would appeal to a man like Magill. I suppose it is the lawyer in him. I suppose it is the stimulus, the incentive—call it what you like—of taking a foregone conclusion case, and swinging it round to his will. In a way, one can understand it."

"I can't!" fulminated Jimmy.

"You remember the Demers-Preccott case?"

"Oh, rather! But that was debatable. And there was no principle involved there. He took the weaker, and as many thought, the wrong side, and we had to admit that he was justified, ethically, by results. But this corporation business is not on the same street at all. It's up a back alley. And you'd think Magill would appreciate the difference."

"I suppose he reasons that the greater the odds, the greater the man to win out. And he will win out."

"Yes. Confounded him! Unless—"

"You know some way to reach him?"

"I know—a person," said Jimmy slowly. "But it's no good," he added dully.

Fraser Johnson looked at him quickly, and as quickly looked away again. He thought he remembered hearing that Jimmy's cousin had once been engaged to the terrible Hazelton Magill, when he was only the brilliant Hazelton Magill. No one knew exactly why the affair was broken off, though the fact that Miss Meredith was known to disapprove of the view he took of the Demers-Preccott case naturally led to certain inferences.

"You know your own business best," he said, when they had walked some time in silence. "But as things are, if I knew a way to move him—any way . . ."

"I know," murmured Jimmy, "I know. We're at our last ditch."

That night he took a car out to his uncle's in the Sandy Hill. Before he had been there long he let the latter draw from him the condition of corporation affairs as they stood, their condition if nothing intervened to divert Hazelton Magill from his evil way. As he was about to take his leave, he crossed over to the low chair where his cousin had sat all evening with her sewing.

"Well, Victoria. What's the good word with you? Going to the Hertton-Lessing dinner Friday?"

"I hadn't thought. But no. Why?"

"Oh, nothing. I was just wondering. Rather in your line, that was all. Well, I'm off." But he still lingered. "He will be there. Our arch foe."

"Mr. Magill?"

Jimmy nodded, laughing.

"Mr. Magill. The dangerous, the Ma-pistopbelean Hazelton Magill."

"Is that the way people speak of him—like that?"

"It is in the way they will, if he puts the Armistage Bill through. Well, *du Revier!* and think it over about the Hewton-Lessing dinner, eh?"

On the stairs Jimmy scowled fiercely at himself.

"Bruse!"

The Hewton-Lessing dinner was a very brilliant affair. Those who were there, and, perhaps, even more, those who were not there, combined in making it very select. Hazelton Magill's presence might have seemed to call for an explanation had he not, as someone aptly remarked, been Hazelton Magill. That made all the difference. You really could not label him. He was a law unto himself. Though if the Armistage Bill passed—well, they should see what they should see. In the meantime, he was received in their midst. He did not seem in the least aware of any condescension on their part in this. He had, in fact, the temerity to be late. And when he did finally appear, it was as one quite unconscious of any lapse in the amenities. Only when led to his dinner partner there was, for the fraction of a second, the least shade of hesitation before he presented his crooked arm to Victoria Meredith with a perfunctory "May I have the pleasure?"

"Too bad," he observed, meeting her dark eyes with a smile, as they made their way out to the dining-room. "How did it happen? The last few years you have been fairly successful in evading me."

"Don't!" said Victoria, in a quick, low voice.

"You prefer to meet as strangers?" he retorted, observing her. "Well, we shouldn't find that so very difficult. We are farther apart than mere strangers could ever be. We should be able to play up to that with élan. Where shall we begin? Now, don't tell me that it doesn't matter, for everything these days is matter."

For a little Victoria let him talk on. And at the proper time she laughed, and when he stopped she made some pertinent remark, at which he laughed, and said, "Have you noticed that, too?" or "You are of an analytical turn of mind

I perceive, Miss Meredith." Just as though she were a stranger—she who had to check herself from finishing his sentences!

The dinner proceeded. And ever the flashes of their repartee came at longer and longer intervals, till silence fell between them.

At last, feeling his eyes upon her, Victoria looked up, her own dark with pain.

"Oh, Hazelton!"

He said nothing. And after a little she went on rapidly: "You asked just now how it happened, our being put together like this. It didn't 'happen.' I asked Flora. More than anything in the world, I wanted to see you, to talk to you, to tell you. Oh, Hazelton—that bill!" Her voice broke over it.

"What about the bill?" grimly.

"It was exactly like you to champion a forlorn hope. But you, Hazelton, you! What does Swinburne say? 'Not for loss of heaven may we put away the rule of right.'"

"You care," he said. "I believe you care."

"Care!" But that doesn't count. Nothing counts but—Don't you see, you being you, you mustn't do this thing? It would be—why I can't tell you what it would be like. I haven't the words. But when I think of it, at home, with streets, and people, and distances, and—a misunderstanding between us, I feel—why, I feel—"

"And if I stuck out for it, as I did for that Demers-Prescott case?" he interrupted her.

"You were right, there," she reminded him. "It was we who were wrong. I—I realized that—afterward."

"Still—I?" He kept her to it.

She straightened, and looked at him proudly.

"You couldn't do a consciously wrong thing. It is not possible. I will not believe it of you."

Again he interrupted her.

"You are right. It is not possible—now. For me the bill no longer exists. For me—"

He bent and whispered something in her ear. And Jimmy Meredith, chancing to look at them just then, grew radiant.

The Armistage Bill would not go through.



THE HARBOR OF PORT WILLIAM
All this has been made possible by dredging

Digging Ditches in Lake Superior

By

B. E. Howard

DEEP sea fishing with a few hundred fathoms of line seems a unvarnished business to the old dredge-man. The end of the dock is far enough out to sea for him, when it comes to fishing, and yet deep sea digging—for what is Lake Superior but an inland sea—is much more wonderful, and to the dredge-man is quite commonplace. He can not see that there is anything remarkable in meddling with the foundations of a great body of water. The old fellow never shudders to see his own kin, with beams and cross-beams, pulleys and chains, gouging into the heart of majestic old Lake Superior. We would think it little more than jus-

tice were the cold waters to set up these puny beings and their complication of levers—to cut 'em up to the last hat and bolt, and with never a ripple to mark the hole they slipped into. But it possesses no wonder for the dredge-man, in fact, in his eyes, not half so much as the sight of a big fish, dragged out on the end of several hundred feet of line.

In the early days of these lake ports, navigation did very well with things as they were. Lake Superior, of her gracious self, floated the craft of men safely into the mouth of the Kaministiquia. Six feet was the depth of water over her sand-bar nose, and keels were dropped by the dar-



THE FLAGSHIP OF THE FLEET

Upper section, three solid cubic yards—showing up the bottom of a river. Calumet indicates in the water. Calumet hangs in the air; cable dropping the tops of the sluice are not more undisturbed.

ing ones to within a fly brush of the bottom. Six feet was the depth in Port Arthur too, called in those days Prince Arthur's Landing, and it was thought very remarkable that vessels could sidle in at the end of the long dock with a few hundred tons of freight from lower down the lakes. Was not that enough—that six feet of water? Indeed it has long since ceased to be enough. In the present day, Lake Superior might still be a lily pond if the harbor depth were left as it was in the old days. One half of the freight which in winter travels the rail route along the North shore could never in Summer be carried by way of the Great Lakes, were it not for these deepened harbors.

As the business between Eastern Canada and Western Canada grew, so "deep sea digging" had to be invoked. Lake Superior did not exactly rebel; she raised strong objections, the bottom of the bay proved to be very hard and the seas which the above lake bowled in, were of embarrassing proportions. But the work went on. The digging machines were made bigger, they were amplified in various ways, supplemented by a host of inventions, until now a modern dredge is a great and terrible automaton, fascinating in its dexterity and keeping the inland mind awed by its power. And the scows which used to carry away the dredgings have now a greater capacity than the very ships, which in the olden days made use



SUCTION DREDGE

A mechanical sucker; works on the bottom instead of the top and draws in everything, water, earth, and all else that will pass the mouth of the pipe.

of the harbor. The dredge-tender is no longer an ordinary scow. It is an immense affair. Half its space is occupied by air compartments and the dumpings from the dredge fall into the various pockets, which are fitted with trap bottoms, all working on a common mechanism. It is a marvelous thing to watch this cumbersome boat bob up in the water like a cork, when the bottom gates are dropped. When it is empty it floats so high that only a foot or so of muddy water remains to be pumped out after the trap bottoms are locked back in place. Some of these scows are made of steel—they are the pride of the fleet. Their capacity is rated at five hundred cubic yards—roughly a thousand tons of sand, clay, rock or wind-blown refuse. A small tug takes the lead in tow—she could berth nicely aboard her helpless charge—and several miles away into Thunder Bay, uncomplaining Lake Superior takes back the soils of her coast-line, dumped upon her floor in little meaningless mounds. For every dredge there are two tenders and enough work to keep a tug busy all the time.

In season, which means the reach of the navigable year, dredging often goes on day and night. The machines are constantly scooping new trenches across the bottom of the Twin Harbors. Watch the big boats manoeuvre around the harbor at Port Arthur and you might imagine that they moved about at will. But in reality their course is very fixed. Each

keel is carefully held over a submerged ditch, which leads from the main channel to whichever dock the boat is to tie up to. The bottom of the harbor at Port Arthur is marked something in the shape of a hand spread out. The wrist is the main channel, coming in from the open lake. Inside the break-water the broad turning basin might be said to represent the palm, while the fingers and the thumb are channels running up and down the harbor and in to the docks.

As for the Fort William harbor. It was formerly merely a narrow shallow river, but it has now been dug out to a fair width and a considerable depth. The Kaministiquia River splits into three outlets at the mouth. The Mission Outlet and the McKellar Outlet are rather smaller than the main stream. The Mission River, as it is called, is being dug out for the Grand Trunk Pacific Harbor. There will be probably eight miles of docks when the work on this section is completed. The McKellar remains in its original state, narrow and comparatively shallow. The main stream harbors big ships for a distance of four miles and will probably continue to be the main harbor until the dredging in the Grand Trunk Pacific locality is completed.

Just how many yards of earth have been taken away to make these harbors probably might be discovered at Ottawa. It must run into the millions of cubic yards. Of course, not all of this has been removed at once. Harbors such as the



LOADED DOWN AND, ON THE WAY TO THE LAKE

Twin Cities possess were not necessary twenty years ago, but the trade between Canada West and Canada East has continued to grow. More vessels are required to carry down the wheat in the Fall. Larger vessels are employed and as a result, there must be more dock room and deeper water. Big ships now bring in 10,000 tons of coal each and carry away 300,000 bushels of prairie wheat. Harbors are always on the edge of being inadequate, yet somehow traffic solves its own problems and with the aid of the dredges gets through the season.

Year by year the Dominion Government appropriates money for dredging harbors at the head of the lakes. The enormous plant of the Great Lakes Dredging Company has grown out of the business thus created. Just at present 400 men are at work, preparing the machinery for the Spring start. At Port Arthur the plant and outfit of the dredge concern sprawl over one-eighth of a mile of water front. To the little army of employees, digging off a layer of the earth's crust is no "problem", it's a "job". When

a new elevator, Gargantuan-like, raises its infant cry for "a slip", dredge No. 1, or dredge No. 12, is ordered to "Dig 'em out."

Larger canals lower down the lakes, more wheat growing in the West, bigger ships and increasing competition, keep the dredges of the Great Lakes busy. There is a romantic side to lake navigation, but not for the humble craft which prepare the harbors. The dredges seldom move out of the bay. They are rusty and always dirty, and still there is something fascinating in watching the great steel arm, with the bucket on the end of it, plunge into the water and pause. The waves roll over it. The cables, cranks and cogs operate mysteriously under the pressure of the sizzling steam "winch", and then up comes the steel arm again heavy with rock and clay, with muddy water spurting from half a dozen joints in the bucket. Finally, poised over the waiting dredge-tender, the cables creak, the sections of the bucket spread apart; and another load falls with a splash into the hold of the scow.

DELILAH

Something wanted doing.

I became aware,
I went into a barber's shop

And took a chair

Came a little lady,
Smiling—debonair,
She seized a pair of fateful shears,

And cut my hair.

Followed lots of lather.

Skillfully rubbed in,
With razor sharp as polished wit,
She smoothed my chin.

I thought of Samson, and

'The Temple's pillar,
And how his flowing love-locks were
Trimmed by Delilah.

I hoped I'd not be led

Such weary dance;
But with my own Delilah—well,
'I'll take chances.

The Return of Rebecca

By

Minna Thomas Antrim

"IS this Beekie?"
"Father!" examined the heavily-veiled passenger. That was all, save close-clasped hands.

At the sight of his daughter, Wanner had been too perturbed, just as Rebecca had been too amazed at his gaunt, elderly figure, to be demonstrative. Ignoring the staring loungers, she descended the snow-laden platform steps of a characteristic Ontario country station, to be tucked into an antiquated sleigh. That there was a new and royally adequate lap-robe, she noted. Nicholas, who was just convalescing from an attack of sciatica, finally climbed in, with evident discomfort, and they were off.

It was a rough day for a woman to be out. The snow was waist-deep in places. For sixteen hours it had been coming down steadily. The wind bit savagely, and talking was out of the question. The girl shivered beneath her costly furs. She was not cold, but dread of a future that seemed as bleak and devoid of promise as the aimless, snow-topped trees they were passing, assailed her. Almost furtively, father and daughter watched each other. Meanwhile, two miles away, Ellen Wanner waited, her eyes aglow. Life had nothing greater to give her than the supreme reward of her home-seeking child. The sound of sleigh-bells came nearer and nearer; in her heart joy belled in unison.

Locked in what was to her own room, freed at last from two pairs of adoring eyes, Rebecca Wanner threw herself upon the primly made bed and sobbed. The change in her life was so momentous, and she felt friendless, desolate, indeed; as strange toward those two devoted parents as toward any one she had beloved upon

the city streets. She did not love that brown-faced little woman, that weather-beaten man. She feared she never would. She had been so sure that up from her heart would well a very fountain of tenderness toward her mother and her father. Nothing of the sort had happened. Had Nature then no undertow? Did this "call of the blood" mean nothing? Or was she one of those weaklings whose emotions could be stirred only by constant proximity. Shocked at her insensibility, she jumped up. She walked to the window, and looked out listlessly. So this was Waterloo, her native district. The view was one to have delighted a less self-centred eye than Rebecca's. For miles beyond, upon every side of the Wanner homestead, but widely scattered, were many substantial-looking farm houses and barns. A church spire sharply pierced the west. What, she idly wondered, was the denomination? What were the religious beliefs of her parents? She turned from the window to look at her room. What a tomb! That the satin-smooth, curly maple bureau, with its curious brass trimmings, was worth its weight in gold; that the carvings upon the four-poster had been done by a master craftsman two centuries ago, she did not realize. Later, she valued them duly. For years she had been used to silted walls, to costly lace and cunningly placed mirrors; hence the bare room with its rug carpet, old prints, and small mirror over a square "stand" seemed forelorn indeed.

As she rocked in the quaint chair beside the bed, vividly the past six months passed before her. She recalled her aunt's varying moods; her fits of temper; her angling for titled introductions; her rudeness to all others in whom Rebecca had

manifested more than a tepid interest. More clearly than all else came back the memory of her aunt's contemptuous arraignment of Dr. Karl von Bauen, upon whose "impertinence" in asking permission to pay his addresses to her niece hung their final quarrel. He had not asked the girl to marry him—not in so many words. But well Rebecca knew how he felt towards her, and she reciprocated—how heartily, separation from him was teaching her. Of the girl's prospects as her aunt's heiress he knew little and thought less. Indeed, the aunt had not hesitated to tell him that if her niece married contrary to her wishes, the girl would get nothing. Rebecca lived again that terrible moment when, aboard-ship, the rich woman, stricken with paralysis, had made pathetic efforts to speak to the girl whom she was taking back to her parents as a "thankless proposition. Of her death within sight of Montreal harbor, Rebecca thought shudderingly, for to die unloved, unmourned, because of a deliberately selfish existence, was too harrowing to dwell upon. It all seemed so remote, yet only one week had passed since the lonely funeral, and now, rendered by her aunt's alternate pettings and scoldings wholly unfit properly to focus her future, Rebecca sat weeping dolorously, while her parents were thanking God for her home-coming. For a long while she wept silently, then, "I will love them, I will be happy. Oh, I am wicked, wicked!" she sobbed aloud. A timid knock brought her to her feet. Hastily she mopped her eyes, and admitted her mother.

"You cry? What for you cry, my Beekie?"

"Beekie!" How strange the homely deplorative sounded!

Anxiously two mother-eyes peered into her tear-stained face.

"What for you cry, eh?"

Rebecca walked over to the small mirror.

"My eyes do look red, don't they, Mother? You see, the wind was in our faces coming from the station," she hedged.

Mrs. Wanner was not deceived, but "Mother"—how the word thrilled her!

"Ack, well, in the future her little girl"—"little girl" to her mother, in spite of her splendid height—should have no

cause for tears. "Come now, we go eat," she said briskly.

As they sat down, the old clock in the hallway slowly struck the half-hour. Noon dinner to-day was half an hour late—the first time in many years.

"Our Beekie goes to sleep now," Mrs. Wanner whispered to "Father" an hour later.

How sweet it was to have their darling safely asleep at home, was in their thoughts. Upon Mrs. Wanner's face, however, a worried expression deepened as the hours passed.

The snow had drifted higher and higher. Night had come, yet the door of Beekie's bedroom remained closed.

"Is she unhappy at coming home? No, not that. Surely that could not, must not, be," the mother-heart protested. Creeping softly up the stairs once more, she "listened," then tiptoed down again. Beekie still slept.

When Nicholas Wanner "gave consent" that his wealthy sister should educate, and in a way adopt, his little daughter, he did so in a travail of soul few could have understood.

That Beekie might be fortunate in material possessions, he realized, but with brimming eyes, carefully wiped, he measured the endless years before she would return to the old home. She would come back some day, but how? Perhaps as contemptuous of their simple ways as was his haughty sister.

It was one of the conditions that if the child was to take advantage of her aunt's proposition, she was not to have her mind "disturbed" by visits to or from her parents. Upon this agreement depended the little one's future. Had not his wife's health been a matter of great concern, and his financial resources at a very low ebb, Nicholas Wanner would have sternly refused his sister's offer.

For days after his child's departure, the father feared that he was to be doubly bereft, but he forgot that Nature works her greatest miracles in silence.

A week after the child's going, Ellen Wanner came downstairs and took up her duties exactly where she had left off three months before. She had a two-fold incentive now. Her "man" surely needed her, and so some day would Beekie. Mean-

while, Nicholas and she had to work hard and save money.

During the third year after Rebecca's going, a big railroad decided that it would be expedient to build an extension. The meadow of Nicholas Wanner alone prevented its immediate beginning. Various sums were offered, but Nicholas warily shook his head, while Ellen uttered broken but emphatic negatives. As their good fortune willed it, the railroad people could not delay as long in their bargaining as they would have liked, hence those "stubborn Wanners" had to have their price.

So it came to pass that one golden October day became memorable because thereon Nicholas Wanner thrust into the middle of their checked "chaff bag" (upon which he and Ellen always slept) Beekie's fortune. Joy-dumb they lay that night, each giving wordless thanks that now their beloved child would not have to harry her soul and wear away her youth as had they. She would never have to "plague herself" as one Sarah called her. Nicholas knew his erratic sister, and in her premises put little trust.

In fear, and literally trembling, they went into town and together placed Beekie's windfall in the bank, returning to renew their accustomed duties. For what was in the bank was but a beginning. Their ambition had grown overnight. Year after year they toiled and saved, denying themselves for Love's sake all save necessities.

It was a far more cheerful young beauty who came down to the early breakfast table the next morning. As she waited to be served—her mother insisted—she discovered that the combined living and dining room in which she sat was a picture. Its quaint assemblage of old Dutch furniture, its sideboard and rush-bottom chairs, its curious old blue and pink Delft and Staffordshire and tall brass candlesticks, would have delighted much more critical eyes. Especially attractive was the row of primly set flower-pots radiant in bloom upon each wide window-sill.

"What a charming room!" she finally exclaimed. "It needs only the tulips to be perfect." Her mother smiled happily.

"But you don't eat, my Beekie; you must eat yourself done," she cautioned.

With this amazing phrase, Rebecca wrestled ingloriously, then, "Does my mother speak German?" she wondered. That tongue had come to her quite as naturally as English. Making a curious Dutch silver spoon her excuse, she asked her mother a question. With delighted surprise, Mrs. Wanner replied in flawless German. Then turning to her husband:

"Our Beekie she speaks German! Oh, so good that it is!" she glowed. Whereupon she began to explain to Rebecca how impossible it had been for her to acquire "English" in her youth. Her father and mother had used pure German habitually; English as spoken by the surrounding folk her father had sternly prohibited.

"Was my grandfather born in Germany?" asked Rebecca.

"Your grandmother was from Holland, but your grandfather was an officer in the German army. I have his medals."

"But why did he come to America?" The little brown woman's eyes filled slowly. Her father's wrongs had been hers always.

"He offended a greater man, and was exiled, his property taken. All that was left is—what you see," concluded Mrs. Wanner, alluding to what was in the house.

"But you met my father in this country?" She smilingly glanced toward her other parent.

"When we were little ones, yes." Another tender glance flew across to the man, who sat rapturously listening to his wife and the child for whom they had waited so long. Rebecca noticed it all, mentally lashing herself that she had so little to give in return.

"And so you were married and lived happily ever afterward?" she ended merrily.

A slow flush crept into two elderly faces. They had married and been very happy, but it was not their way to speak of it, even to each other; nevertheless, as "Mother" passed the second cup of coffee to "Father," their hands touched, and each knew that the old truth survived.

From that time, Rebecca and her Mother spoke German, discarding the language in which Mrs. Wanner was so consciously at a disadvantage. As the weeks multiplied, the girl's heart grew lighter in spite of the fact that perhaps

never again would she see a laughing pair of eyes that had looked the question he dared not ask upon their last morning together in Carlsbad.

She was content, almost happy. How dear the little woman with the graying hair and old-fashioned ways had become to her, Reba, as she had been called by her aunt, had not quite realized, until one afternoon she happened in upon her mother when overcome by sleep. So softly she was breathing, that she seemed not to breathe at all. Her beautifully shaped but work-hardened hands were crossed peacefully upon an alarmingly still breast. With a throb of agony like unto nothing she had ever felt before, Rebecca knelt and peered into the quiet face. "Thank God, oh, thank God!" she murmured, the while laying her fresh young cheek against the clasped hands. "My blessed little Mother!" she whispered brokenly. "My poor tired little Mother!" Then, lest she wake the sleeper, she stole softly out of the room. It was hereafter to be her greatest joy to live for them, to adopt their ways. Many an evening was spent by the fireside in talking them over the route of her own travels. To see the Fatherland, her mother had often expressed a keen desire. The quiet man upon the other side of the huge fireplace said little, but he was beyond words content. His child had come home, his cup was full. The letter of repudiation that her aunt had threatened to write to Nicholas had never been written, nor had Reba yet heard that a modest fortune lay ready for her spending in a nearby bank. In this crisis of their lives, money meant little to those who literally had slaved for it.

Mrs. Von Schuyler's will had never been mentioned. Reba, however, often thought of it. Had she and her aunt not quarrelled, she would have millions, and so be able to make life a very easy thing for the two old souls, who were not "old" really, but so sadly workworn, and who had suffered privations, she feared, whilst upon her had been squandered so much money. Self-content stung her anew whenever she thought of their hardships.

One morning, about six weeks after her home-coming, a passing wagoner halted: "Come out once, here's two letters," he bawled. Rebecca returned to the house

with a huge business-like envelope and a letter bearing a foreign post-mark. Quickly she tore open the letter, at the first words of which an exquisite pink covered her like a veil!

THE RITE, FEBRUARY 2, 1907.

DEAREST ONE:

I am leaving my patients to a colleague and am coming to your big country. I must see you. I must hear if it is true that my love would be unwelcome. From your own lips it must come to make it seem true, for surely upon that last wonderful morning, I was not dreaming when I saw in you dear face the answer to a question that I did not then, in honor, dare to ask.

Enough! I sail next week in the Cedric. I shall find that farmhouse in Western Ontario whence your lamented aunt said you were to go direct. I shall seek her lawyers, then the consul, if need be, for find you, will I.

Until then, dear one,
auf Wiedersehen,
THEY KARL.

Then the other letter demanded her attention. After reading it, for a few moments she sat amazed, speechless. Then—"Mother," she said quietly, "Aunt Sarah has left me three million dollars." For a tense moment, Ellen Wanner stared stupidly, then sank upon a chair listlessly.

"Beckie! Beckie!" she moaned. "You—won't—go—away?" Pitifully her voice trailed to trembling silence.

"Never, little Mother!" Rebecca cried passionately. "Never will I go again, unless I take you and Daddy with me." The wistful face brightened.

"Then art very happy, Dear one?" the mother asked.

In spite of the glory that had just come to her, before the beatific sacrificial glow in the elder woman's soft brown eyes, Rebecca stood humbly.

"Happy?" she breathed. "Oh, little Mother, I am the happiest girl in God's good world to-day!" Then, impelled by something stronger than self, she gathered the small woman with passionate tenderness to her exultant young breast.

Three Bungalows at Small Cost

By

Wilberforce Jenkins

Specially Designed for our Readers by Wilberforce Jenkins, a Bangalologist of Many Years' Experience.



THE NEVERS HUT

THIS attractive little edifice can be built with two upright posts, either of hickory or chestnut-maple, a couple of post-holes, and a cross-beam, at a cost not exceeding ten thousand dollars. The materials are easily obtained in almost any section of the country, with the possible exception of the holes, which will have to be specially prepared and cannot be had ready made. Any quality of timber will suffice, but the holes must be new, and used while fresh. The finished construction is pleasing to the eye, is always cool, but not water-proof, being open both at the front and at the rear, and having no eaves to protect it. It will not need fireplaces at any season of the year, for the reason that, owing to the simplicity of its construction, fires can be built in the middle of it without seriously endangering the woodwork, which, being limited in quantity, is correspondingly little exposed. The air in a Bungalow of this design is always fresh, no matter how much or what quality of tobacco the occupant may smoke, and, there being no kitchen, kitchen odors are entirely absent. It has no windows to rattle in storms, or doors to

bang or to be kept locked. Indeed, a burglar, even if he were tempted to enter it, would find himself out on the other side before he knew it, thanks to the peculiarities of its design. It has the additional advantage of not needing furniture, which is a great saving in the expense of maintenance, though a lummock swung between the posts would prove a desirable adjunct to its comforts. The fact that it is not water-proof makes it desirable that the tenants should have an umbrella all ways at hand during the rainy season, as well as a rubber blanket for use on showery nights. The plan has been drawn with an especial eye to the needs of those who wish to keep open house. Built of polished mahogany, rosewood, or ebony, the cost will of course be somewhat increased, but this is more than offset by the omission of shingles, clapboards, or wood of any kind on the front and rear elevations.



THE BLEN-DOOR LEAN-TO

This charming bit of remembrance work can be built exclusive of plumbing and ornamental roocco embellishments for less than eight thousand dollars, provided the construction is given careful super-

vision. It is made of two barn-doors, with tent pegs, four in number, to hold the sides A and B. A few nails or screws carefully inserted at the apex of the inverted V after the barn doors are leaned against each other will add to the stability of the completed structure, but are not necessary, except in localities where the wind is over sixty miles an hour in blow-power. This style of Bungalow can be made mosquito-proof at slight extra expense if portieres of green linsy-woolsey, or tarleton, are hung at the front and rear entrances, and kept screwed down so that they may not flap open on breezy nights; and care be also taken that there are no knot-holes in the materials of which it is constructed. Its breeziness depends much on the prevailing winds. Lateral winds will leave it warm within in autumn, while frontal or rearward breezes in summer will keep it cool during the heated season. At an extra cost of not more than five thousand dollars, it can be built upon a pivot so as to revolve and catch, or shut off, the prevailing breeze, according to the desires of the tenant. This cost may be materially reduced if the builder is able to find within convenient hauling distance a second-hand locomotive turn-table no longer needed by the railway management. If the barn-doors are not available for any reason, old-fashioned cellar-doors of the same size will do quite as well.



III.

THE DIOGENES PORTABLE

For a single man, the *Diogenes Portable* is one of the most convenient Bungalows made. It should not in any case run

above seven thousand five hundred dollars in cost, and should be bought ready-made rather than built. It is constructed of staves, hoops, and a single bung-hole, the latter to admit light and air, and also to be used as a speaking-tube when the occupant wishes to speak to anybody on the outside without going out. Having two ends, and being light and easy reversible, it can be used upside-down at night as a sleeping-room, and by day turned the other way as a breakfast table, a tom-tom or a seat; and when in transit provides a fairly-acceptable substitute for a trunk. If a cork is also provided, it can likewise be used as a bath-tub. These Bungalows come in a variety of sizes, from what is technically termed the nail-key size up to the hoghead dimensions. For a large man, the last is by all means the preferable, but in a country infested with flies it is not desirable that it should have been previously used for sugar or molasses. Indeed, the flour-barrel bungalow gives the greatest degree of satisfaction. The nail-points on the inside should be carefully removed before occupancy, and before returning for the night in it the tenant should see that it is firmly fixed on a flat base, lest it tip over and roll downhill with him. This style is called the *Diogenes Portable* because, while it is not a tub, it is an improvement thereon, and would doubtless have been used by the Philosopher in preference to the other had it been as immediately available. In its portability, adaptability to other uses, freedom from plumbing, and generally picturesque features, it sufficiently resembles the original Bungalow of the Sage to warrant the use of the title. It has the singular advantage that while the occupant is protected from wind and weather on all sides, it has only two sides to be kept in repair—the inside and the outside.



The Trail of '98

By

Robert W. Service

Author of "The Songs of a Sourdough" and "Ballads of a Cheechako."

BOOK IV

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He burned a hole in the frozen muck;
He scratched the icy mould;
And there in six-foot dirt he struck
A sack or so of gold.

He burned a hole in the Decalogue,
And then it came about—
For Fortune's only a lousy rogue—
His "pocket" petered out.

And lo! it was but a year all told,
When there in the shadow grim,
But six feet deep in the icy mould,
They burned a hole for him.

—The Yukoner.

THE VORTEX

CHAPTER I

"NO, no, I'm all right. Really I am. Please leave me alone. You want me to laugh? Ha! Ha! There! Is that all right now?"

"No, it isn't all right. It's very far from all right, my boy; and this is where you and your little uncle here are going to have a real heart to heart talk."

It was in the big cabin on Gold Hill, and the Prodigal was addressing me. He went on:

"Now, look here, kid, when it comes to expressing my feelings, I'm in the kindergarten class; when it comes to banding out the high-toned dope I drop my cue every time; but when I'm needed to do the solid pardner stunt then you don't need to holler for me—I'm there. Well, I'm giving you a straight line of talk. Ever since

the start I've taken a strong notion to you. You're always been ace-high with me, and there never will come the day when you can't eat on my meal-ticket. We tackled the Trail of Trouble together. You were always wanting to lift the heavy end of the log, and when the God of Cussedness was doing his best to rasp a man down to his yellow streak, you shored up white all through. Say, kid, we've been in tight places together; we've been stacked up against hard times together; and now I'll be gold-darned if I'm going to stand by and see you go downhill, while the devil oils the bearings."

"Oh, I'm all right," I protested.

"Yes, you're all right," he echoed grimly. "In an impersonation of an 'all-right' man it's the book for years. I've seen 'all-right' men like you hitting the busy trail for the bonanza before now. You're 'all-right'! Why, for the last two hours you've been sitting with that 'just-break-the-news-to-mother' expression of yours, and paying no more heed to my cheerful brand of conversation than if I had been a measly four-flusher. You don't eat more than a sick sparrow, and often you don't bat an eye all night. You're looking worse than the devil in a gale of wind. You're lost your grip, my boy. You don't care whether school keeps or not. In fact, if it wasn't for your folks, you'd be like a short cut across the Great Divide."

"You're going it a little strong, old man."

"Oh no, I'm not. You know you're sick of everything. Feel as if life's a sort of penitentiary, and you've just got to do time. You don't expect to get any more fun out of it. Look at me. Every day's my sunshine day. If the sky's blue I like it; if it's grey I like it just as well. I never worry. What's the use? Yesterday's a dead one; to-morrow's always to-morrow. All we've got's the 'now,' and it's up to us to live it for all we're worth. You can use up more human steam to the square inch in worrying than you can to the square yard in hard work. Eliminate worry and you've got the only system."

"It's all very well for you to preach," I said; "you forget I've been a pretty sick man."

"That's no nursemaid's dream. You almost cashed in. Typhoid's a serious proposition at the best; but when you take a crazy streak on top of it, make a midnight getaway from the sickward and land up on the Slide looking as if you'd been run through a threshing machine, well, you're sure letting death get a short option on you. And you gave up. You didn't want to fight. You shirked, and your youth and constitution fought for you. They healed your wounds, they soothed your ravings, they cooled your fever. They were a great team, and they pulled you through. Seems as if they'd pulled you through a knot-hole, but they were on to their job. And you weren't one bit grateful—seemed to think they had no business to butt in."

"My hurls are more than physical."

"Yes, I know; there was that girl. You seemed to have a notion that was the only girl on God's green brush-pile. As I leaped there by your bedside listening to your ravings, and getting a strange hold on you when you took it into your head to get funny, you blabbed out the whole yarn. Oh, sonny, why didn't you tell your uncle? Why didn't you put me wise? I could have given you the right steer. Have you ever known me handle a job I couldn't make good at? I'm a whole matrimonial bureau rolled into one. I'd have had you prancing to the tune of the wedding march before now. But you kept mum as a mummy. Wouldn't even tell your old pard. Now you've lost her."

"Yes, I've lost her."

"Did you ever see her after you came out of the hospital?"

"Once, once, only. It was the first day. I was as thin as a rail, as white as the pillow from which I had just raised my head. Death's reprieve was written all over me. I dragged along wearily, leaning on a stick. I was thinking of her, thinking, thinking always. As I scanned the faces of the crowds that thronged the streets, I thought only of her face. Then suddenly she was before me. She looked like a ghost, poor little thing; and for a fluttering moment we stared at each other, she and I, two wan, fearful ghosts."

"Yes, what did she say?"

"Say! she said nothing. She just looked at me. Her face was cold as ice. She looked at me as if she wanted to pelt me. Then into her eyes there came a shadow of bitterness, of bitterness and despair such as might gloom the eyes of a lost soul. It unnerved me. It seemed as if she was regarding me almost with horror, as if I were a sort of a leper. As I stood there, I thought she was going to faint. She seemed to sway a moment. Then she drew a great, gasping breath, and turning on her heel she was gone."

"She cut you?"

"Yes, cut me dead, old fellow. And my only thought was of love for her, eternal love. But I'll never forget the look on her face as she turned away. It was as if I had lashed her with a whip. My God!"

"And you've never seen her since?"

"No, never. That was enough, wasn't it? She didn't want to speak to me any more, never wanted to set eyes on me any more. I went back to the ward; then, in a little, I came on here. My body was living, but my heart was dead. It will never live again."

"Oh, rot! You mustn't let the thing down you like that. It's going to kill you in the end. Buck up! Be a man! If you don't care to live for yourself, live for others. Anyway, it's likely all for the best. Maybe love had you locked. Maybe she wasn't really good. See now how she lives openly with Loesche. They call her the Madonna; they say she looks more like a virgin-martyr than the mistress of a dissolute man."

I rose and looked at him, conscious that my face was all twisted with the pain of the thought.

"Look here," I said, "never did God put the breath of life into a better girl. There's been foul play. I know that girl better than any one in the world, and if every living being were to tell me she wasn't good I would tell them they lied, they lied. I would burn at the stake upholding that girl."

"Then why did she turn you down so cruelly?"

"I don't know; I can't understand it. I know so little about women. I have not wavered a moment. To-day in my loneliness and heartbreak I care and hunger for her more than ever. She's always here, right here in my head, and no power can drive her out. Let them say of her what they will, I would marry her to-morrow. It's killing me. I've aged ten years in the last few months. Oh, if I only could forget."

He looked at me thoughtfully.

"I say, old man, do you ever hear from your old lady?"

"Every mail."

"You've often told me of your home, Say! just give us a mental frame-up of it."

"Glengyle? Yes. I can see the old place now, as plainly as a picture: the green, dimpling hills all speckled with sheep; the grey house nestling snugly in a grove of birch; the wild water of the burn leaping from black pool to pool, just with the joy of life; the midges dancing over the water in the still sunshine, and the trout jumping for them—oh it's the bonny, bonny place. You would think so, too. You would like it, tramping knee-deep in the heather, to see the moorcock rise whirling at your feet; you would like to set sail with the fisher folk after the silver herring. It would make you feel good to see the calm faces of the shepherds, the peace in the eyes of the women. Ay, that was the best of it all, the Rest of it, the calm of it. I was pretty happy in those days."

"You were happy—then why not go back? That's your proper play; go back to your Mother. She wants you. You're pretty well healed now. A little money goes a long way over there. You can count on thirty thousand. You'll be comfort-

able; you'll devote yourself to the old lady; you'll be happy again. Time's a regular steam-roller when it comes to smoothing out the rough spots in the past. You'll forget it all, this place, this girl. It'll all seem like the after effects of a midnight Welsh rabbit. You've got mental indigestion. I hate to see you go. I'm really sorry to lose you; but it's your only salvation, so go, go!"

Never had I thought of it before Home! how sweet the word seemed. Mother! yes, Mother would comfort me as no one else could. She would understand. Mother and Garry! A sudden craving came over me to see them again. Maybe with them I could find relief from this awful agony of heart, this thing that I could scarce bear to think of, yet never ceased to think of. Home! that was the solution of it all. Ah me! I would go home.

"Yes," I said, "I can't go too soon; I'll start to-morrow."

So I rose and proceeded to gather together my few belongings. In the early morning I would start out. No use prolonging the business of my going. I would say good-bye to those two partners of mine, with a grip of the hand, a tear in the eye, a husky: "Take care of yourself." That would be all. Likely I would never see them again.

Jim came in and sat down quietly. The old man had been very silent of late. Putting on his spectacles, he took out his well-worn Slide and opened it. Back in Denver there was a man whom he hated with the hate that only death can end, but for the peace of his soul he strove to conquer it. The hate stumbled, yet at times it stirred, and into the old man's eyes there came the tiger-look that had once made him a force and a fear. Woe betide his enemy if that tiger ever woke.

"I've been a-thinkin' out a scheme," said Jim suddenly, "an' I'm a-goin' to put all of that twenty-five thousand of mine back into the ground. You know us old miners are gamblers to the end. It's not the gold, but the gettin' of it. It's the excitement, the hope, the anticipation of one's luck that counts. We're fighters, an' we've just got to keep on fightin'. We can't quit. There's the ground, and there's the precious metals it's a-tryin' to hold back on us. It's up to us to get them

out. It's for the good of humanity. The miner an' the farmer rob no one. They just get out of that old ground an' coax it an' 'bout it an' 'bally it till it gives up. They're working for the good of humanity—the farmer an' the miner." The old man paused sententially.

"Well, I can't quit this minin' business. I've just got to go on so long's I've got health and strength; an' I'm a-goin' to shove all I've got once more into the muck. I stand to make a big pile, or lose my wad."

"What's your scheme, Jim?"

"It's just this: I'm goin' to install a hydraulic plant on my Ophir Creek claim. I've got a great notion of that claim. It's with water. There's a little stream runs down the hill, an' the hill's steep right there. There's one hundred feet of fall, an' in Spring a mighty powerful bunch of water comes a-tumblin' down. Well, I'm goin' to dam it up above, bring it down a dume, hitch on a little giant, an' turn it loose to rip an' tear at that there ground. I'm goin' to begin a new em in Klondike minin'."

"Bully for you, Jim."

"The values are there in the ground, an' I'm sick of the old slow way of gettin' them out. This looks mighty good to me. Anyway, I'm a-goin' to give it a trial. It's just the start of things; you'll see others will follow suit. The individual miner's got to go; it's only a matter of time. Some day you'll see this whole country worked over by them big power dredges they've got down in California. You mark my words, boys; the old-fashioned miner's got to go."

"What are you goin' to do?"

"Well, I've written out for piping an' a monitor, an' next Spring I hope I'll have the plant in workin' order. The stuff's on the way now. Hullo! Come in!"

The visitors were Mervin and Hewson on their way to Dawson. These two men had been successful beyond their dreams. It was just like finding money, the way fortune had pushed it in front of their noses. They were offensively prosperous; they reeked of success.

In both of them a great change had taken place, a change only too typical of the gold-camp. They seemed to have thawed out; they were irrepressibly genial; yet instead of that restraint that had

formerly distinguished them, there was a forced quality of weakness, of flaccidity, of surrender to the enervating vices of the town.

Mervin was remarkably thin. Dark hollows circled his eyes, and a curious nervousness twisted his mouth. He was "a terror for the women," they said. He lavished his money on them faster than he made it. He was vastly more companionable than formerly, but somehow you felt his virility, his fighting force had gone.

In Hewson the change was even more marked. Those iron muscles had coaxed themselves in easy flesh; his cheeks sagged; his eyes were bloodshot and untidy. Nevertheless he was more of a good fellow, talked rather vauntingly of his wealth, and affected a patronizing manner. He was worth probably two hundred thousand, and he drank a bottle of brandy a day.

In the case of these two men, as in the case of a thousand others in the gold-camp, it seemed as if easy, unhoped-for affluence was to prove their undoing. On the trail they had been supreme; in fen or forest, on peak or plain, they were men among men, fighting with nature savagely, exultantly. But when the fight was over their arms rested, their muscles relaxed, they yielded to sensuous pleasures. It seemed as if to them victory really meant defeat.

As I went on with my packing I paid but little heed to their talk. What mattered it to me now, this babble of dumps and dross, of claims and clean-ups? I was going to thrust it all behind me, blot it clean out of my memory, begin my life anew. It would be a larger, more luminous life. I would live for others. Home! Mother! again how exquisitely my heart grieved at the thought of them.

Then all at once I pricked up my ears. They were talking of the town, of the men and women who were making it famous (or rather infamous) when suddenly they spoke the name of Locasto.

"He's gone off," Mervin was saying; "gone off on a big stampede. He got pretty thick with some of the Peol River Indians, and found they knew of a ledge of high-grade, free-milling quartz somewhere out there in the Land Beck of Beyond. He had a sample of it, and you

could just see the gold shining all through it. It was great stuff. Jack Locasto's the last man to turn down a chance like that. He's the worst gambler in the Northland, and no amount of wealth will ever satisfy him. So he's off with an Indian and one companion, that little Irish satellite of his, Pat Deegan. They have six months' grub. They'll be away all winter."

"What's become of that girl of his?" asked Hewson, "the last one he's been living with? You remember she came in on the boat with us. Poor little kid! Blast that man anyway. He's not content with women of his own kind, he's got to get his clutches on the best of them. That was a good little girl before he got after her. If she was a friend of mine I'd put a bullet in his ugly heart."

Hawson growled like a wrathful bear, but Mervin smiled his cynical smile.

"Oh, you mean the Madonna," he said; "why, she's gone on the dance-halls."

They continued to talk of other things, but I did not hear them say more. I was in a trance, and I only aroused when they rose to go.

"Better say good-bye to the kid here," said the Prodigal; "he's going to the old country to-morrow."

"No, I'm not," I answered sulkily; "I'm just going as far as Dawson."

He stared and expostulated, but my mind was made up. I would fight, fight to the last.

CHAPTER II.

Berna on the dance halls—words cannot convey all that this simple phrase meant to me. For two months I had been living in a dull apathy of pain, but this news galvanised me into immediate action.

For although there were many degrees of dance-hall depravity, at the best it meant a brand of ineffaceable shame. She had lived with Locasto, had been recognised as his mistress — that was bad enough; but the other—to be at the mercy of all, to be clasped with the harpists that preyed on the Man with the Poke, the vampires of the gold-camp. Berna—Oh, it was unspeakable! The thought maddened me. The needle-point of suffering that for weeks had been boring into my brain seemed to have pierced its core at last.

When the Prodigal expostulated with me I laughed—a bitter, mirthless laugh. "I'm going to Dawson," I said, "and if it was hell itself, I'd go there for that girl. I don't care what any one thinks. Home, society, honor itself, let them all go; they don't matter now. I was a fool to think I could ever give her up, a fool. Now I know that as long as there's life and strength in my body, I'll fight for her. Oh, I'm not the sentimentalist I was six months ago. I've lived since then. I can hold my own now. I can meet men on their own level. I can fight, I can win. I don't care any more, after what I've gone through. I don't set any particular value on my life. I'll throw it away as recklessly as the best of them. I'm going to have a fierce fight for that girl, and if I lose there'll be no more 'me' left to fight. Don't try to reason with me. Reason be damned! I'm going to Dawson, and a hundred men couldn't hold me."

"You seem to have some new stunts in your repertoire," he said, looking at me curiously; "you've got me guessing. Some times I think you're a candidate for the dippy-house; then again I think you're on to yourself. There's a grim set to your mouth and a hard look in your eyes that I didn't use to see. Maybe you can hold up your end. Well, anyway, if you will go I wish you good luck."

So, bidding good-bye to the big cabin, with my two partners looking ruefully after me, I struck off down the Bonanza. It was mid-October. A bitter wind chilled me to the marrow. Once more the land lay stark beneath its coverlet of snow, and the sky was wan and ominous. I traveled fast, for a painful anxiety gripped me, so that I scarce took notice of the improved trail, of the increased activity, of the heaps of tailings built up with brush till they looked like walls of a fortification. All I thought of was Dawson and Berna.

How curious it was, this strange new strength, this indifference to self, to physical suffering, to danger, to public opinion! I thought only of the girl. I would make her marry me. I cared nothing for what had happened to her. I might be a pariah, an outcast for the rest of my days; at least I would save her, shield her, cherish her. The thought uplifted me, exalted me. I had suffered be-

yond expression. I had rearranged my set of ideas; my concept of life, of human nature had broadened and deepened. What did it matter if physically they had wronged her? Was not the pure, virgin soul of her beyond their reach?

I was just in time to see the last boat go out. Already the river was "throwing ice," and every day the jagged edges of it crept further towards mid-stream. An immense and melancholy mob stood on the wharf as the little steamer backed off into the channel. There were uproarious souls on board, and many women of the town screaming farewells to their friends. On the boat all was excited, extravagant joy; on the wharf, a sorry attempt at resignation.

The last boat! they watched her as her stern paddle churned the freezing water; they watched her forge her slow way through the ever-thickening ice-lakes; they watched her in the far distance battling with the Klondike current; then, and dependent, they turned away to their lonely cabins. Never had their exile seemed so bitter. A few more days and the river would close tight as a drum. The long, long night would fall on them, and for night on eight weary months they would be cut off from the outside world.

Yet soon, very soon, a mood of reconciliation would set in. They would begin to make the best of things. To feed that great Oseopus, the town, the miners would flock in from the creeks with treasures hoarded up in baking-powder tins; the dance-halls and gambling-pisces would absorb them; the gaiety would go on full swing, and there would seem but little change in the glittering abandon of the gold-camp. As I paced its sidewalks once more I marvelled at its growth. New streets had been made; the stores boasted expensive fittings and glories in costly goods; in the bar-rooms were splendid mirrors and ornate wood work; the restaurants offered European delicacies; all was on a new scale of extravagance, of garish display, of insolent wealth.

Everywhere the man with the fat "poke" was in evidence. He came into town unshorn, wild-looking, often raggedly clad, yet always with the same wistful hunger in his eyes. You saw that look, and it took you back to the dark and dirt and drudgery of the claim, the mirthless

months of toil, the crude cabin with its sugar barrel of ice behind the door, its grease light dimly burning, its rancid smell of stale food. You saw him lying, smoking his strong pipe, looking at that can of nuggets on the rough shelf, and drowsing of what it would mean to him—out there where the lights glittered and the gramophones blared. Surely, if patience, endurance, if grim, unswerving purpose, if sullen, desperate toil deserved a reward, this man had a peckful of pleasure for his due.

And always, that hungry, wistful look. The women with the painted cheeks knew that look; the black-jack boosters knew it; the barkeeper with his knock-out drops knew it. They waited for him; he was their "meat."

Yet in a few days your wild and woolly man is transformed, and no longer does your sympathy go out towards him. Shaven and shorn, clad in silken underwear, with patent leather shoes, and a suit in New York style, you absolutely fail to recognize him as your friend of the moroccos and mackinaw coat. He is smoking a dollar Laramie, he has half a dozen whiskeys "under his belt" and later on he has a "date" with a lady singer of the Pavilion Theatre. He is having a "whale" of a good time, he tells you; you wonder how long he will last.

Not for long. Short and short and sweet it is. He is brought up with a jerk, and the Dago Queen, for whom he has bought so much wine at twenty dollars a bottle, has no recollection for him in her flashing eyes. He has been "taken down the line," "trimmed to a finish" by an artist in the business. Ruefully he turns his poke inside out—not a "color." He cannot even command the price of a penitential three-fingers of rye. Such is one of the commonest phases of life in the gold-camp.

As I strolled the streets I saw many a familiar face. Mother I saw. He had grown very fat, and was talking to a diminutive woman with heavy blond hair (she must have weighed about ninety-five pounds, I think.) They went off together.

A knife-edged wind was sweeping down from the north, and men in bulging coonskin coats filled up the sidewalks. At the Aurora corner I came across the Jam-

wagon. He was wearing a jacket of summer flannels, and, as if to suggest extra warmth, he had turned up its narrow collar. In his trembling fingers he held an emaciated cigarette, which he inhaled avidly. He looked wretched, pinched with hunger, peaked with cold, but he straightened up when he saw me into a semblance of well-being. Then, in a little, he sagged forward, and his eyes went dull and abject. It was a business of the utmost delicacy to induce him to accept a small loan. I knew it would only plunge him more deeply into the mire; but I could not bear to see him suffer.

I went into the Parizan Restaurant. It was more glittering, more raffish, more clamant of the tenderloin than ever. There were men waiters in the conventional garb of watered-down, and there was Madam, harder looking and more vulgaristic. You wondered if such a woman could have a soul, and what was the end and aim of her being. There she sat, a creature of rapacity and scoldish lust. I marched up to her and asked abruptly:

"Where's Berna?"

She gave a violent start. There was a quality of fear in her bold eyes. Then she laughed, a hard, jarring laugh.

"In the 'T'oli," she said.

Strange again! Now that the worst had come to pass, and I had suffered all that it was in my power to suffer, this new sense of strength and mastery had come to me. It seemed as if some of the iron spirit of the land had gotten into my blood, a grim, insolent spirit that made me fearless; at times a cold cynical spirit, a spirit of rebellion, of anarchy, or aggression. The greatest evil had befallen me. Life could do no more to harm me. I had everything to gain and nothing to lose. I cared for no man. I despised them, and, to back me in my bitterness, I had twenty-five thousand dollars in the bank.

I was still weak from my illness and my long march had wearied me, so I went into a saloon and called for drinks. I felt the raw whisky burn my throat. I tingled from head to foot with a strange, pleasing warmth. Suddenly the bar, with its protecting rod of brass, seemed to me a very desirable place, bright, warm suggestive of comfort and good-fellowship. How agreeably every one was smiling! Indeed, some were laughing for sheer joy.

A big, merry-hearted miner called for another round, and I joined in.

Where was that bitter feeling now? Where that morbid pain at my heart? As I drank it all seemed to pass away. Magical change! What a fool I was! What were there to make such a fuss about? Take life easy. Laugh alike at the good and bad of it. It was all a farce anyway. What would it matter a hundred years from now? Why were we put into this world to be tortured? I, for one, would protest. I would writhe no more in the strait-jacket of existence. Here was courage, heartiness, happiness—here in this couplet impishness. Again I drank.

What a rotten world it all was! But I had no hand in the making of it, and it wasn't my task to improve it. I was going to get the best I could out of it. Eat, drink, and be merry, that was the last word of philosophy. Others seemed to be able to extract all kinds of happiness from things as they are, so why not I? In any case, here was the solution of my troubles. Better to die happily drunk than miserably sober. I was not drinking from weakness. Oh no! I was drinking with deliberate intent to kill pain.

How wonderfully strong I felt! I smashed my clenched fist against the bar. My knuckles were bruised and bleeding, but I felt no pain. I was so light of foot, I imagined I could jump over the counter. I acted to fight some one. Then all at once came the thought of Berna. It came with tragical suddenness, with poignant force. Intensely it snote me as never before. I could have burst into maddening tears.

"What's the matter, Slim?" asked a moodily manikin, affectionately hanging on to my arm.

Disgustedly I looked at him. "Take your filthy paws off me," I said. His jaw dropped and he stared at me. Then, before he could draw on his fund of profanity, I burst through the throng and made for the door.

I was drunk, deplorably drunk, and I was bound for the Tirol.

CHAPTER III

I wish it to be understood that I make no excuses for myself at this particular stage of my chronicle. I am only conscious of a desire to tell the truth. Many

of the stronger-minded will no doubt condemn me; many of those inclined to a rigid system of morality will be disgusted with me; but, however it may be, I will write plainly and without reserve.

When I reeled out of the Grubstake Saloon I was in a peculiar state of exaltation. No longer was I conscious of the rapping cold, and it seemed to me I could have couched me in the deep snow as easily as in a bed of down. Surprisingly brilliant were the lights. They seemed to convey to me a portentous wink. They twinkled with jovial cheer. What a desirable place the world was, after all!

With an ebullient sense of eloquence, of extravagant oratory, I longed for a sympathetic ear. An altruistic emotion pervaded me. Who would suspect, thought I, as I walked a little too circumspectly amid the throng, that my heart was aglow, that I was tensing my muscles in the pretense of their fitness, that my brain was a bewildering kaleidoscope of thoughts and images?

Gramophones were braying in every conceivable key. Brazen women were looking at me. Pot-bellied men regarded me furtively. Alluringly the gambling-dens and dancing-dives invited me. The town was a giant spider drawing in its prey, and I was the prey, it seemed. Others there were in plenty, men with the eager, wistful eyes; but who was there so eager and wistful as I? And I didn't care any more. Strike up the music! On with the dance! Only one life have we to live. Ah! there was the Tivoli.

To the right as I entered was a palatial bar set off with burnished brass, bevelled mirrors and glittering, vari-colored pyramids of costly liqueur. Up to the bar men were belligerent, and the bartenders in white jackets were mixing drinks with masterly dexterity. It was a motley crowd. There were men in broadcloths and fine linen, men in blue shirts and mud-stiffened overalls, grey-headed eldery and beardless boys. It was a noisy crowd, laughing, bawling, shouting, singing. Here was the foam of life, with never a hint of the muddy sediment underneath.

To the left I had a view of the gambling-room, a glimpse of green tables, of spinning balls, of cool men, with shades over their eyes, impassively dealing. There were huge wheels of fortune, keno

tables, crap outfits, faro layouts, and above all, the dainty, fascinating roulette. Everything was in full swing. Miners with flushed faces and a wild excitement in their eyes, were plunging recklessly; others, calm, alert, anxious, were playing cautiously. Here and there were the fevered faces of women. Gold coins were stacked on the tables, while a man with a pair of scales was weighing dust from the tattered pokes.

In front of me was a double swing-door painted in white and gold, and, pushing through this, for the first time I found myself in a Dawson dance-hall.

I remember being struck by the gorgeousness of it, its glitter and its glow. Who would have expected, up in this bleak-visaged North, to find such a fairy-land of a place? It was painted in white and gold, and set off by clusters of bunched lights. There was much elaborate scroll-work and ornate decoration. Down each side, raised about ten feet from the floor, and supported on gilt pillars, were little private boxes hung with curtains of heliotrope silk. At the further end of the hall was a stage, and here a vaudeville performance was going on.

I sat down on a seat at the very back of the audience. Before me were rows after rows of heads, mostly rough, rugged and unwashed. Their faces were eager, rapt as those of children. They were enjoying, with the deep satisfaction of men who for many a weary month had been breathing the free, unbranded air of the Wild. The sensuous odor of patchouli was strangely pleasant to them; the sight of a woman was thrillingly sweet; the sound of a song was ravishing. Looking at many of those toil-grooved faces one could see that there was no harm in their hearts. They were honest, unsmooth, simple; they were just like children, the children of the Wild.

A woman of generous physique was singing in a shrill, nasal voice a pathetic ballad. She sang without expression, bringing her hands with monotonous gesture, alternately to her breast. Her squat, matronly figure, beef from the heels up, looked singularly absurd in her short skirt. Her face was excessively over-painted, her mouth good-naturedly large, and her eyes out of their slit-like lids leered at the audience.

"Ain't she great?" said a tall beanie-pole of a man on my right, as she finished off with a round of applause. "There's some class to her work."

He looked at me in a confidential way, and his pale-blue eyes were full of rapturous appreciation. Then he did something that surprised me. He tugged open his poke and, dipping into it, he produced a big nugget. Twisting this in a scrap of paper, he rose up, long, lean and awkward, and with careful aim he threw it on the stage.

"Here ye are, Lulu," he piped in his shrill voice. The woman, turning in her exit, picked up the offering, gave her admirer a wide, gold-toothed smile, and threw him an emphatic kiss. As the man sat down I could see his mouth twisting with excitement, and his watery blue eyes snapped with pleasure.

"By heck," he said, "she's great, ain't she? Many's the bottle of wine I've opened for that there girl. Guess she'll be glad when she hears old Henry's in town again. Henry's my name, Hardpan Henry they call me, an' I've got a claim on Hunker. Many's the wallopin' poke have I tote! into town an' blowed in on that there girl. An' I just guess this one'll go the same gait. Well, says I, what's the odds? I'm havin' a good time for my money. When it's gone there's lots more in the ground. It ain't got no legs. It can't run away."

He chuckled and hefted his poke in a bony hand. "There was a flutter of the heliotrope curtains, and the face of Lulu, peeping over the plush edge of a box, smiled bewitchingly upon him. With another delighted chuckle the old man went to join her.

"Darned old fool," said a young man on my left. He looked as if his veins were chuckful of health; his skin was as clear as a girl's, his eye honest and fearless. He was dressed in mackinaw, and wore a fur cap with drooping ear-flaps.

"He's the greatest mark in the country," the Youth went on. "He's got no more brains than God gave geese. All the girls are on to him. Before he can turn round that old bat up there will have him trimmed to a finish. He'll be doing fire-flaps, and singing 'Way Down on the Swanee River' standing on his head. Then the girl will pry him loose from his poke, and to-morrow he'll start off up the

reek, teetering and swearing he's had a dooze of a good time. He's the easiest thing on earth."

The youth paused to look on a new singer. She was a soubrette, trim, dainty and confident. She wore a blond wig, and her eyes in their pits of black were alluringly bright. Paint was lavished on her face in violent dabs of rose and white, and the inevitable gold teeth gleamed in her smile. She wore a black dress trimmed with sequins, stockings of black, a black velvet band around her slim neck. She was greeted with much applause, and she began to sing in a fairly sweet voice.

"That's Nellie LeStrange," said the youth. "She's a great ruster — Touch-the-button-Nell, they call her. They say that when she gets a jay into a box, it's all day with him. She's such a nifty wine-winner the end of her thumb's calloused pressing the button for fresh bottles."

Touch-the-button Nell was singing a comic ditty of a convivial order. She put into it much vivacity, appealing to the audience to join in the chorus with a pleading, "Now all together, boys." She had tripping steps and dainty kicks that went well with the melody. When she went off half a dozen men rose in their places, and aimed nuggets at her. She captured them, then, with a final saucer-bounce of her skirt, made her smiling exit.

"By Gosh!" said the youth, "I wonder these fellows haven't got more savvy. You wouldn't catch 'em chucking away an ounce or one of those fairies. No, sir! Nothing doing! I've got a five-thousand-dollar poke in the bank, and to-morrow I'll be on my way outside with a draft for every cent of it. A certain little fawn 'way back in Vermont looks pretty good to me, and a little girl that don't know the use of face powder, bless her. She's waiting for me."

The excitement of the liquor had died away in me, and what with the heat and smoke of the place, I was becoming very drowsy. I was almost dozing off to sleep when some one touched me on the arm. It was a negro waiter I had seen dodging in and out of the boxes, and known as the Black Prince.

"Dey's a lady up'n de box wants to speak with yuh, sah," he said politely.

"Who is it?" I asked in surprise.

"Miss Labelle, sah, Miss Birdie L. L. belle."

I started. Who in the Klondike had not heard of Birdie Labelle, the eldest of the three sisters, who married Sullivan Willie? A thought flashed through me that she could tell me something of Berna.

"All right," I said; "I'll come."

I followed him upstairs, and in a moment I was ushered into the presence of the famous subroite.

"Hallo, kid!" she exclaimed, "sit down. I saw you in the audience and kind-a took a notion to your face. How d'ye do?"

She extended a heavily bejewelled hand. She was plump, pleasant-looking, with a piquant smile and flaxen hair. I ordered the waiter to bring her a bottle of wine.

"I've heard a lot about you," I said tentatively.

"Yes, I guess so," she answered. "Most folks have up here. It's a sort of reflected glory. I guess it hadn't been for Bill I'd never have got into the lime-light at all."

She sipped her champagne thoughtfully.

"I came in here in '97, and it was then I met Bill. He was there with the coin all right. We got hitched up pretty quick but he was such a nut I soon got sick of him. Then I got skating round with another gaw. Well, an egg famine came along. There was only nine hundred samples of hen fruit in town, and one store had a corner on them. I went down to buy some. Lord! how I wanted those eggs. I kept thinking how I'd have them done, shiprecked, two on a raft or sunny side up, when who should come along but Bill. He sees what I want, and quick as a flash what does he do but buy up the whole bunch at a dollar a-piece! 'Now,' says he to me, 'if you want eggs for breakfast just come home where you belong.'"

"Well, say, I was just dying for them eggs, so I comes to my milk like a lady. I goes home with Bill."

She shook her head sadly, and once more I filled up her glass.

She prattled on with many a gracious smile, and I ordered another bottle of

wine. In the next box I could hear the squeaky laugh of Hard-pan Henry, and the teasing tones of his inamorata. The visits of the Black Prince to this box with fresh bottles had been fast and furious, and at last I heard the woman cry in a querulous voice: "Say, that black man coming in so often gives me a pain. Why don't you order a case?"

Then the man broke in with his senile laugh:

"All right, Lulu, whatever you say goes. Say, Prince, tote along a case, will you?"

"Surely, thought I, there's no fool like an old fool."

A little girl was singing, a little, wis-some girl with a sweet childish voice, and an innocent face. How terribly out of place she looked in that palace of sin. She sang a simple, old-world song, full of homely pathos and gentle feeling. As she sang she looked down on those furrowed faces, and I saw that many eyes were dimmed with tears. The rough men listened in rapt silence as the childish treble rang out:

"Darling, I am growing old;
Silver threads among the gold
Shine upon my brow to-day;
Life is fading fast away."

Then from behind the scenes a pure alto joined in and the two voices, blending in exquisite harmony, went on:

"But, my darling, you will be,
will be,
Always young and fair to me.
"Yes, my darling, you will be
"Always young and fair to me."

As the last echo died away the audience rose as one man, and a shower of nuggets pelted on the stage. Here was something that touched their hearts, stirred in them strange memories of tenderness, brought before them half-forgotten scenes of fireside happiness.

"It's a shame to let that kid work in the halls," said Miss Labelle. There were tears in her eyes, too, and she hurriedly blinked them away.

Then the curtain fell. Men were clearing the floor for the dance, so, bidding the lady adieu, I went downstairs.

(To be Continued.)



"BETWEEN THE HIGH AND THE LOW-TIDE DRIVEWAYS—A LINE OF REFUGE."

The Women of The Magdalens

By

W. Lacey Amy

MANLIKE I concluded that I thoroughly understood the women of those lonely islands in the centre of the Gulf of St. Lawrence, right after my first experience with one of them. I had promised a frankly-requesting Frenchman to take a picture of his new house, with his wife and family in front of it, in order that he might be able to show his wandering brother on the mainland that things were prospering with him. It was, of course, no surprise to me that the wife should not be ready when I called; so that, after I had arranged the husband and one child with all the solemnity of a gallery effort, I waited patiently for the woman to appear. Finally I asked for her.

"She's not coming," he replied in his broken English.

"That's too bad," I answered indefinitely.

"She hasn't her best dress on."

"Oh, I'll wait for her," I offered, stooping down to pick the wild strawberries,

just then ripe, a month after they had disappeared from Ontario tables.

"But it is not finished yet," he protested.

That ended it. Nothing short of her best dress, which was not yet finished, was going to appear in the picture he would send to his brother on the mainland. But just then she hurried from the back door and I snapped the shutter.

Later another side of the Magdalen feminine was revealed.

"Follow the beach road," was the direction I had received from the woman who served me with milk, cream and butter-milk, in large jugs at each meal. The direction was to lead me to the captain of the Government tug, which plies across the islands.

The injunction was specific enough, so I followed the first road that led to the beach. In fact, I followed, but with wandering zeal, half a dozen of those uncertain tracks that ended in the sea. At last I discovered two women, and an uncounted



"Rides up the little French pony in the stable."

same estimate. By the time I had reached the captain three miles further along I had come to the conclusion that I had been too hasty in forming my conclusions when a Magdalen Islands woman kept me waiting until she was dressed in her best. To be sure, she was shy and proud, but she was also frankly interested and bold, garrulous, critical and able to make the other sex feel like mere men; and there was nothing under the sun she could not guess at if she did not know it. And as I pulled the peg from the captain's gate it came to me with a great burst of radiance, that the woman of the Magdalens was just a woman, after all. There was some relief in understanding that one could never understand her.

The only fact about the Magdalen women which is certain of support on all occasions is the size of her family. Le Bourdais, the legless telegraph operator on the Islands, turned up his nose at the size of families; but then he was prejudiced. "Pooh!" he sneered between puffs. "Seventeen is the largest family we have, and"—he reflected a moment to add the weight of thoughtful consideration—"there are not very many of them more than fifteen. I took off my hat surreptitiously to the fifteen. Le Bourdais had come from the mainland of Quebec. "Friend of mine over there," he resumed, by way of explanation of his contempt for seventeen, "one of a family of twenty-two, married a woman from a family of twenty-seven. They have nineteen themselves already." Then he came hastily to the defence of his friend: "And he's a young man, yet."

I went out humbly and counted a nearby pile of lobster traps to get an idea of twenty-seven in one group. What they do in the families of respectable size I can not see. The parents of the seventeens and fifteens on the Magdalens are now overtaxed for names. So there may happen to be a trifle like a score of youngsters of the same name in the one village, and to make sure of washing the faces of the right ones at night, distinction is made by throwing in the father's name somewhere with the son's. Joe Anzime Burke is Joe Burke, the son of Anzime Burke. Joe Burke P. is the tag attached to Joe, the son of Peter; and he was not Joe Peter Burke, nor even Joe Burke Peter. But the mothers are too

number of children pulling weeds in a small garden patch, and, remembering the shyness of the first woman, I approached with most reassuring manner, and asked for something sufficiently definite in directions to prevent my covering the whole island like a census-taker.

These women did not shrink. Instead, they looked up, rose to their feet, ignored my question, and turned to each other to discuss in French the latest gossip. I thought I saw my mistake, and tried French, but after a moment's splutter I found myself staring idiotically into eyes which looked me up and down with the calmness of women at a costume exhibition. My coat collar was turned down, that I knew—for I had parted from the Woman-who-worries in the best of feeling; and say be was of that loose, summy kind, which is most effective when misplaced. Yet I felt, however, as if I should turn myself around, as the owner does in selling a horse.

A few yards further a woman attempted to give me directions in English. I had still a quarter of a mile to go, she said. A mile further another woman made the

busy raising them to think of new names—and if it were left to the father he would be working in "Cod," or "Mackerel," or "Haddock," or "Herring," or some such name descriptive of the limits of his imagination.

With all these family cares, the women find time to attend to their work—which means more than washing dishes, hunting bargains and studying the hair-dressers' windows. They do not know what bargains and hairdressers are. It is an unwritten law that man was made to fish, and woman to do the rest. Coming in from the sea in the fish boat—the man's home—the woman clutches the sides, fixes her eyes on the cross-bar in front of her, and prays quietly until the bottom grates on the pebbles. Then she goes to the farm, plows, reaps, gardens, does the housework, spans those of the fifteen who are not away fishing, and in her spare time hitches up the little French pony to the "charette" and digs clams for the next day's fishing. At night she walks down to the fish-house on the sandbar, where her lord lives through the summer, and has the meal prepared for him on his return from the fishing grounds.

These fish-houses are a sort of two-story stable. In the ground apartment is a miscellaneous collection of bait, deceiving fish heads, lobster traps, nets, salt, and other odoriferous necessities of the profession. Above the single board ceiling is the drawing-room, which is also kitchen, dining-room and bedroom. The sitting-room is the steps leading on the outside to this second story. Sometimes it serves as the bathroom as well, as I discovered when hatches of the fifteen, unembarrassed, were lined up for cleansing operations.

Even the turning of the cod on the flakes is the work of the women. Groups of men delight to stand around these flakes on a day too stormy to fish, and watch the girls and women staggering under the heaped carriers. They even allow their wives to dig the bait while they smoke and lazily clean up their boats.

But some of the younger women retain the feminine instinct. With the Woman-who-worries I had walked to Etang du Nord, on the north side of Grindstone Island, to secure some fishing scenes. In that village there was no striking inducement for a woman who was not broken in,



"The fish houses are a sort of two-story stable."

to wander further along the shore than the edge of the houses. The Norder has the uncomfortable habit of cleaning his fish on the shore and trusting to the tide to scavenge. But its scavenger corps evidently lacks organization and system, judging from the two-foot bank of fish cleanings that maintains a permanent division between the high and the low-tide driveways.

To the Woman-who-worries, remaining alone beyond the fish-cleaning lines, there came tripping down with feminine pride a young woman, conspicuously arrayed for the occasion in striking waist and huge lace collar. Only a few minutes previously she had been visible at a door in typical fish-wife garb. But now she approached with all the confidence of her distinctive attire, and calmly surveyed the mainland costume. A young man rose from the steps of a bait-house and walked briskly across to the two women.

"That your man?" he asked, pointing about the shore to me.

The Woman-who-worries was forced under the circumstances to acknowledge me.



"Where the remains of wrecked hulls lie waiting."

"That's my girl!" he said proudly, nodding at the gay waist. And the girl preened herself and turned to expose a new elevation.

But there are other women on the Islands. Over at Amberst live four sisters, the only English women on that Island. For years unknown in number to ordinary knowledge, they and their parents have dwelt on the same point of land—Shea's Point, it is called, after them. All around the Point the four sisters can look down upon the remnants of wrecks that

have blown ashore before their eyes for many years, in the wild storms of the Gulf. For forty years, and more, they and their mother have provided the only accommodation for visitors; and in token of it they show with pride an ancient, velvet-backed autograph album that has been the only register of kind words left them. They are not young, but their hos-

pitality remains fresher than their faces. It never grows stiff, or weak, or weary, as their old bones shall some day.

Their father was a fish merchant, the squire of the Island, but at his death, his daughters could not continue the fish business, and so the eldest has taken for her special care the old store, where she makes her share of the expenses by dealing out candy, spoons and groceries. Her stock is not large, but the other stores see that she never runs out of supplies.

When the ill-fated Lunenburg, the predecessor of the present steamship, left Amberst on the trip that was unwillingly changed from the second last one of the season to its last for all time, Mary Shea enquired anxiously of the owner of the boat what she would do if the boat was unable to get back from the mainland before winter.

"Rest assured, we'll get back," he answered lightly.

But Mary was not satisfied. She had seen many Magdalen winters.

And Leslie, to relieve her anxiety, turned to the manager of his store. "If we should not get back, give Mary all she wants," he ordered. Thus the old store was not closed that winter.

"And," concluded Mary, as she told me of that terrible wreck off West Point Light-house, "you could travel the four globes and not find a nicer man."

The sisters have erected a new three-storey house just above the old one, but nothing would induce them to tear down the squatty old affair their father built

and their mother adorned. In imitation of the prints they have seen of modern summer hotels, the new one has a verandah across the entire front, approached by imposing steps and backed by a glass-surrounded door. It is the largest house on the Islands, as befits the dignity of its use; and within its parlor is one of the two or three organs that have been the marvel of the Islanders. Even before I looked at the titles of the sheets of music on the rack, I knew what I would find: "Sweet Marie," "He Never Smiled Again," "Break the News to Mother," "My Sweetheart Went Down With the Maine," "After the Ball," "In the Gloaming," "Kathleen Macvarnagh," and the "Maiden's Prayer." The organ was never heard during my visit, but the tone it gave the surroundings was considered sufficient to justify its presence.

On every piece of furniture was a "tidy," on the floors were thick, variegated, hooked rugs, on the rugs were hand-worked foot-stools, and on the wall a design of roses worked out in sea shells. One of the sisters attended to the wants of her few guests; the others cooked in a small detached shanty, weeded vegetables and carried the water from the old pump in the older house.

It was a pleasant place to rest, from the eight o'clock breakfast bell to the golden sunset, and on into the gleaming moonlight. Just before the sun set behind the low sandbar far away across Pleasant Bay, one of the sisters would scurry around after a few gababout turkeys, reluctant to leave the evening peace. A lamb bleated plaintively from its rope fastening near the edge of the cliff, and another sister ran to calm it with a tin of water. That lamb was destined to supply the winter's meat, and its important position in the household economy could not be neglected. A cow stood hopelessly grazing from the only unfenced side of its field, down, down, sixty feet to the ocean's edge, where the ugly ribs of the wrecked hulls lay waiting for the storm to tear away a few more planks.

Later, we sat on the verandah, in a moonlight that rivaled the day. The

large, yellow orb looked down on the sleeping Island from the southeast, casting a lonesome radiance full of shadows over the anchored fishing fleet. Below us the fish-houses were wrapped in early slumber. A charette rattled clumsily down the road, the little pony lazily responding to the woman returning over-late from the farm work. One of the Shea sisters crept quietly out of the shadows by the gate on her way back from the Catholic church where she had been preparing for the next day's services; her "nice, fine evening" and "good night" were what we had been waiting for before retiring.

A wind blow, strong, through the bedroom window, but its mildness enticed to one last look over Pleasant Bay in the wonderful moonlight. Just a stone's throw distant two old masts protruded from the water, silent reminders of other conditions, when the moon did not shine, and the water was rippling to more than a summer breeze. Out there, a dark shadow glided slowly along in the moonlight and stopped. For a moment it swung; and then the sidelights of an anchored boat told of the fisherman who had wandered to over-distant fishing grounds, and was willing to risk his boat under the cliffs to save the time of tocking into the fishing harbor further over.

Four hours later, at one in the morning, the fish-houses would be alive again with fishermen preparing for the day's fishing. And the women would hurriedly clean up the breakfast dishes, hitch the ponies and hasten to their tasks on the farms.



Below us the "fish houses"



Road Cruising for Motors in Canada

By

Pierre St. Quentin

IT IS ALL very well for a motorist to be able to 'take a spin' whenever he pleases but, unless he has an objective, his motoring will lack a great deal of the pleasure of which the sport is capable. To go over and over the same roads, time after time, until every fence and hedge, every hill and valley is as familiar as his own front door, may be healthy and invigorating, but it is certainly not very cheerful. What humanity wants is variety,—something new and different from one's ordinary surroundings. And this is just what the automobile makes possible, if it is put to its greatest use.

Hitherto, if a man wanted a change of air or of scene, he must needs travel away from home by train or boat running on fixed schedules and giving no opportunities for taking in attractive sights on the way. Or he might hire a horse and drive for a limited distance into the country. Both ways of travel had their limitations. But the automobile supplies just what each of these modes of travel lack. Like the train it is capable of covering long distances; at the same time it enables the tourist to stop and investigate whenever he feels like it, just as if he were driving a horse.

No one can really appreciate the capabilities of an automobile for providing real downright pleasure until he goes on tour into a new and untrodden country. To start off in the morning and spin along through fresh scenes of rural beauty, past villages and towns, beside lakes or rivers or the ocean itself, through woods and

valleys, is to understand something of the thrill that made the blood of the ancient explorers tingle. Another advantage is that while it conveys you rapidly to new scenes, it never compels you to stop in a place that you do not like, unless, of course, you should be so unfortunate as to have a breakdown. If the country through which you are passing is dull and uninteresting, you can speed away to finer stretches.

You cannot do all this, however, if you trust only to the stars to guide you. The best of guide books should always be taken along and, better still, should be studied carefully before setting out on the tour. The man who attempts to tour by "dead" reckoning is bound to have experiences that will require a picturesque vocabulary to describe. The ordinary atlas or map should be avoided for while it shows the location of towns and cities, it gives absolutely no useful information about the roads. To rely on information picked up on the way from "natives," is liable to lead one into difficulties. He is a notorious miscalculator of distances, is the "native," and his opinion as to the condition of roads is nearly always erroneous because he judges them by his own requirements. It is a safe rule to observe, that the best of road maps and the most complete of guide books should always be included in the automobile kit. There are several of these issued in Canada and in all the principal cities special guide books for the surrounding country are to be had.

What to take aboard the machine on the tour! It is the tendency of the inexperienced to take 'unnecessary' things. Except on routes where comfortable stopping places are few and far between a suit case should hold all personal necessities. A trunk packed with changes of clothing and other desiderata can be shipped along ahead to points where longer stops are scheduled. Even the space taken up by a compact automobile trunk won't, in most cases, be better given over to an extra supply of gasoline, oil and such vital requisites, unless the car is a very large one. Vital parts of the motor, carburetor, and ignition system, which cannot readily be obtained en route, should invariably be given preference to luggage. If the trip is to be made through rough country, pulley and tackle should be taken along for emergencies, as well as two jacks, as one never knows when it may not be necessary to jack the car out of a hole. If there is a prospect of the car being left in the open over night a rubber cover is a splendid adjunct.

Now it is true that there are tours and tours. One may follow the beaten tracks of commerce and sleep every night in a comfortable hotel or one may diverge into wilder regions and camp out over night. The latter course is adventurous and requires special equipment. The very essence of "automobile cruising" as it is called is to be able to strike or pitch camp quickly so that you may enjoy to the full the long range which the car gives you. It is advisable to choose the special automobile tents with telescoping steel poles and steel pins, which are great time-savers. They go up with one operation, waterproof, floor cloth and all, the guy ropes being made fast to the steering column and wheels of the car. Very complete and extremely stowable cooking outfits can be procured and in hot weather a refrigerator basket may be stowed somewhere to carry butter, fresh meat and other perishable food. A five or ten pound assortment of staple foods should also be taken along. Equipped with such an outfit, or at least its essential items, the motorist is prepared to undertake a most enjoyable motor cruise. Once tried it will be repeated many times.

Canada affords opportunities for a great variety of motor tours of both varieties

described. From Nova Scotia to British Columbia the country is full of attractive routes. Perhaps the most notable long distance run is what is known as the Grand Trunk auto route from Detroit to St. Anne de Beaupre, Quebec, covering a mileage of 836 miles and passing through London, Hamilton, Toronto, Kingston, Montreal, Three Rivers and Quebec. This is a main highway and the road will be found to be as good as anything in Canada, with few exceptions. From the different cities mentioned there are further opportunities for making runs north and south through very interesting country. In Quebec there is a delightful region in the Eastern Townships where there is the finest of scenery. New Brunswick presents the valley of the St. John River and in Nova Scotia there are excellent roads in the western counties and around Truro and Halifax. In the West, of course, the scenery is less varied, though none the less pleasing until the mountains are reached.

It is important for tourists to know and understand their legal rights and responsibilities. The laws governing the running of automobiles are provincial enactments and vary from province to province. If there be any intention to go from one province into another, it is advisable to take careful note of the law in the second province. In the matter of speed for instance, the Ontario law allows ten miles in cities, towns and villages; in Quebec it is nine miles. In Upper Canada vehicles pass to the right; in the Maritime Provinces they go to the left. In some provinces only one light is required; in others two white forward and one red reverse are necessary.

The touring autoist is entitled to freedom from unlawful annoyance and to a liberty of the road consistent with the public safety. His right to be left alone if he is within the laws should be enforced, not only for his own sake but the benefit of other autoists, thereby creating respect for the road rights of the automobile. But every endeavor should be made not to create prejudice against the automobile by failing to respect, fully, the rights of animal-drawn vehicles, and other users of the highway.

A point to remember when you are held up for alleged violation of the speed limit is that it is not your part to show that you

did not exceed the limit. The accuser must undertake to show this. You are presumed innocent by the Law and have a right to insist upon the benefit of this presumption until it is shown that you have violated the code. It is always safe to insist upon your legal rights being respected but do not carry the argument too far when it is plain that you are in the wrong. Insist that none other than proper evidence be used against you.

Finally it is always of advantage when contemplating motor tours to take out a membership in one of the provincial motor clubs. These organizations have been formed for the general benefit of the motoring fraternity, and anyone owning a motor and using the roads will be lacking in a proper appreciation of what these motor leagues are doing if he fails to give them the benefit of his sup-

port. They are the strenuous advocates of good roads. They look after the necessary marking of the routes. They see that legislation considers the rights of the motorists. In fact they are very necessary and useful.

And now that the summer season is here and the country is at its best, let every owner of a touring car make up his mind that he will adopt this means of enjoying a holiday. There are many tours which he can essay, both long and short, smooth-running or more difficult. With the proper equipment and an adequate knowledge of the road he will be in a position to undertake anything. Those who have not yet invested in a car will perhaps see in this feature of motoring a good reason why it would be worth their while to purchase one.



"SUNSET ON THE ROCKIES"

Watch! 'tis the flash of sunlight gleaming,
On Nature's fortress gray;
The flight of the silver arrows streaming,
That challenge the dark'ning way;
Soon will the silence and the dreaming,
Rest where was day.

List! 'tis the march of shadows creeping,
From tranquil valleys low;
O'er foaming torrent boldly leaping,
Or stealing forward slow;
Where sentry fires with shrouded forms are sleeping,
Mid cloud and snow.

Spencer Frost.

THE BEST FROM THE CURRENT MAGAZINES

Engineering in Agriculture as it Affects Competition Between Canada and the United States

WE reproduce the following article exactly as it appears in *Cassier's Magazine*. This publication deals largely with engineering matters and in a technical way. But the following article by A. W. Day is not only timely, but well written. As the editor of *Cassier's* points out in an editorial head-note, this article is very pertinent, in view of the closer trade relations which may soon be consummated between the two countries. Of course, Mr. Day writes from an American standpoint and Canadians may discount some of his statements.

There is probably no department of industry in which the use of power-operated machinery for the saving of time and labor and for the increase of capacity and output has been less evident than in agriculture. Compare the production of the raw material of foodstuffs with the manufacture of lumber, steel, textiles, and even building materials, and the difference in the utilization of power instantly appears. In the improvement of harbors and waterways, as well as in the operations of land drainage, the heavily-powered dredges and excavators are everywhere in evidence, supplemented by locomotives, cars and track.

We now have two great agricultural countries, neighbors and competitors, rapidly becoming alive to the tremendous possibilities of a wider use of power machinery in their fundamental development, in the production of the food by

which not only their own people, but a large part of the rest of the world, are to be sustained.

In the United States the farming area occupied at the present time comprises nearly 315,000 square miles, or about two hundred million acres, and, in view of these figures, it seems almost incredible that the importance of power-operated machinery as an economical factor in agriculture has not been more fully realized. It is true that the records of the Department of Agriculture show that modern improved mechanism is in operation on about eight million acres of cultivated soil, but this means only about 4 per cent. of the farming territory actually devoted to crop production. The figures show that the remainder of this immense area is still cultivated by the use of mechanical appliances such as the plow, harrow, rake and harvester, but operated, not by mechanical power, but by the horse, the mule, and sometimes even by manual effort.

When the results which have been accomplished by the introduction of machinery operated by steam, gasoline or electric power are considered, it will be fully demonstrated that, even allowing for greater first cost for supplies and for repairs, the increase in capacity is so great as to warrant the statement that one of the greatest of national wastes is that due to the tillage of the fields by the old-fashioned methods.

Abundant data are available to prove this assertion, for tests have been made, especially on the larger farms of the western States, and also on the famous tule lands of California, which show the great economy and capacity of steam power when applied to farm engine or tractor. Since the tractor was placed in active service on the farms in 1900 its numbers have increased until at the present time nearly 10,000 are in service, varying in horsepower according to the work required. The reason for its popularity is that the tractor is adapted for such a variety of purposes. In the plowing and cultivation of heavy lands, such as clay soil, and the black muck so abundant in the west, and the stiff, and-covered prairie, the portable engine can turn up the earth, drawing a series of plows where four horses could not pull even one implement. The daily result in acres is, of course, determined by the power employed. The theoretical plowing capacity of the steam plow is thirty-eight acres a day for the moldboard plow and forty-five acres for the disc, the day being twelve hours long. The daily actual average, as gained from reports made by plow owners, is twenty-three acres for moldboard plows in the Northwest and twenty-six acres for the disc plows in the Southwest. The moldboard plow is used almost exclusively in the Northwest and the disc in the Southwest.

As to the services performed, steam engines used for plowing are usually rated at from 20 to 50 horse-power, from 25 to 35 being the figures usually. The steam plowing engines weigh from 7 to 20 tons, and cost from \$1,500 to \$3,000. On the Pacific coast the usual engine is larger, averaging about 80 horse-power, and costing from \$5,000 to \$6,000. The average cost of the miscellaneous equipment for the steam plowing outfit adds another \$500 to the investment. In California some of the owners of large outfits plowing nearly 3,500 acres annually each estimate the average durability of the outfit at fifteen years, or more than 50,000 acres per plow, in addition to threshing and other work done outside of plowing seasons. A crew of from three to six men is needed to operate a large steam plow. One is the engineer, whose pay ranges from \$3 to \$4 75 per day; one guides the

engine, one fires, one looks after the plows, one drives the team that keeps the engine supplied with water and fuel, and, in many cases, a cook also is carried. The prices charged by traction-plowing outfits range from 75 cents to \$5 per acre. The lowest figures usually are for stubble plowing and the highest for breaking sod. The acre-cost of steam plowing, as found by a comprehensive investigation, is from 75 cents to \$1.85—less than one-fifth of the cost where the horse and mule are employed.

The plains of western Canada have recently developed into wheat fields by this aid. In 1900, about the time the tractor plow became unquestionably practical, there were fewer than 2,500,000 acres sown to wheat between Winnipeg and the mountains. In 1909 Saskatchewan alone had 4,085,000 acres sown to wheat, which yielded 90,255,000 bushels, or more than Manitoba and Alberta combined. Manitoba had 2,643,111 acres, which yielded 45,774,707 bushels, and Alberta 333,000 acres, which yielded 8,250,000 bushels. These three provinces combined thus had 7,058,111 acres, which yielded a total of 114,279,707 bushels, or more wheat in one year than the entire German Empire.

These great tracts of Canada have demonstrated not merely the importance, but the necessity, of power mechanism. Grain is grown on what was formerly prairie land, which is very tenacious and of hard composition. Here and there are fields covering several hundred acres, while hundred-acre fields are numerous. It would be impossible to plow, cultivate and harvest these, even by horse-power, except at a great loss in time and expense to the farming community. Here is an illustration in point. In Saskatchewan, a section of rich, wild soil land, 640 acres, was broken in twenty-two hours, three steam outfits working continuously in order to get the land plowed immediately. A six-horse team, with a gang plow, would have required a month. Sundays included, to perform the same amount of work. The result was that the owner was able to plant his entire 640 acres at the right time, instead of only a small portion of it, as would have been the case had he depended upon animal power.

Several types of tractors are in use for agriculture. One design, employed in California, is noted for its dimensions and performance. The largest size has driving wheels 8 feet in diameter, with 60 inches face of tire. The lead wheel is five feet in diameter, with 48 inches of face, which gives a tremendous bearing surface, enabling the engine to go over very soft ground. This engine develops 110 horse-power on the crank-shaft, and can pull six gangs of plows, cutting a furrow each time of about 36 feet in width, and traveling at the rate of 3 miles per hour. It will also haul a steam combined harvester, clearing a swath 35 feet in width. It cuts, threshes, reclaims and sacks the grain from 100 to 125 acres each day at a cost not exceeding 30 cents per acre. A smaller size, used for hauling supplies and wagons, has a capacity of 50 tons, depending upon the conditions to overcome. The speed of the engines is 3 miles per hour, with or without a load, which is as fast as deemed practicable to run machinery of this class over ordinary country roads.

This engine, by the Best Manufacturing Company, is a western design, and intended for the soft, loose tule lands, its broad wheel tires preventing it from sinking into the earth and lessening its traction.

Another western tractor, also employed, is the Holt, which is manufactured on the Pacific coast. It is intended not only for agriculture, but for hauling farm and freight wagons on the rough and heavy-grade mountain roads. Loads too heavy to be hauled easily by the ordinary six and eight-horse freight teams can be removed by the traction-engine freighting outfit expeditiously and economically. They will do heavy hauling for less than half what it costs to do the same work with horses, or, up to 100 tons per day, will do the work for less than it could be done by means of railroads, as tests have shown.

This tractor has an engine of 60 horse-power and main wheels 7 feet 6 inches in diameter, driven independently by chains and friction gear, dispensing with any equalizing gear. The use of main and secondary chain gear permits a broken link to be readily replaced in case of breakage—an important matter in the field or on the road. An auxiliary wagon,

with an engine which can take steam from the main boiler and be connected to the traction by chain and clutch gear, is used to increase the tractive power for steep grades and extra heavy loads. These engines are arranged to use oil fuel, as especially adapted for the locality and conditions for which they are most used, or, by a modification of the grate, they may be used for either coal or wood fuel.

These engines will haul a load of from 40 to 60 tons, depending on the character of the road, at a speed of from 2 to 3 miles per hour, loaded, and to 4 miles, empty, ascending with a full load, on good roads, grades up to 10 per cent, smaller loads on proportionately steeper grades.

For the small farm, ranging from 50 to 200 acres, the tractor, if driven by a gasoline engine, is an economical and really necessary source of power, since it is self-propelled and can be utilized in so many different agricultural processes. This type of tractor, designed by the experts of the International Harvester Company, makes a new era in power application to agriculture, and is already in service both in America and in Europe. Its advantages over steam power include higher efficiency, economy and convenience.

One manufacturer builds three types of vapor-driven tractors, ranging from 12 to 20 horse-power. A brief description of the smallest gives an idea of what gasoline power means to the farmer in efficiency and economy. The engine is a regular 12-horse-power engine mounted on two channel-steel sills of great strength and durability. To this main frame is bolted the sub-frame, reinforced by two angles to make the frame rigid and prevent twisting, and also to keep all gears and boxes in accurate alignment. At the front end of the main frame is the bolster, which connects with the front axle by means of a ball and socket. The axle is arched, and is provided with very substantial truss rods, making it capable of withstanding any twisting or jarring to which it may be subjected. The driving wheels are 56 inches in diameter and have a 16-inch face. To this 16-inch face are riveted cleats, which provide ample traction when going through mud or over soft ground. Extra mud legs are also provided to be used when working under extremely bad conditions.

The power is transmitted from the engine crankshaft to the drive wheels by only two sets of pinions and gears. The two speeds are obtained by two gears on the clutch sleeve located on the engine crankshaft. When using the slow speed, the smaller gear is selected and moved into the mesh with the larger gear on the countershaft. To obtain the fast speed, the small gear is moved out of mesh and the large gear is moved into mesh with the smaller gear on the countershaft. The gears are controlled by hand levers, and are provided with notches to hold each gear in its respective place. It is impossible to have two speeds in mesh at one time. These gears are also so arranged that, when the engine is doing belt work, all of the gears may be thrown out of mesh. They then revolve as idle gears with the engine. The reverse is accomplished by means of a friction gear, which is mounted on a hollow eccentric.

This tractor is adapted for all light work, such as found on the average small farm. It will draw two or three plows. It proves satisfactory for operating small threshing machines, shredders, huskers, shellers, and many other machines. The second speed with which it is provided permits the tractor to move these machines at the same speed as would a team of horses. It is especially adapted for hauling purposes, and drawing binders. The friction clutch is smaller in diameter than the regular friction pulley on the opposite side of the engine, so that when this friction clutch is used as a belt pulley the tractor is actually provided with two pulleys of different diameter, both of which may be used at one time.

The capacity of the 20 horse-power tractor is best shown by the discovery that, when in service, it develops enough power to haul four 16-inch plows or a load of 6½ tons; but, like the others, it can be employed for many other operations on a farm, even to operating the cream separators in the dairy, churning the butter, and cutting the hay and corn for ensilage, when attached to the necessary implements. The gasoline tractor is another revolution in power application that is of great importance in the agriculture of the future.

The greatest invention to further agricultural progress and prosperity has been

the evolution of the harvester, now to be seen in the grain fields throughout the world. From the days of the McCormick, the genius who first conceived it, the changes in the mechanism have indeed been remarkable. Ten years elapsed before the farmers who studied McCormick's idea were convinced that it was practical, such was the prejudice inspired by ignorance of the soil tillers. To-day more than 400,000 machines, representing several types of horse harvesters, are in use, in addition to composite machines hauled and operated by the tractor, which furnishes power not merely for cutting the wheat crop, but for storing it in the receiving wagons, operating the thrasher, and also the machinery which bags the grain for storage, a crew of only three men being needed besides the engineer. The harvester alone does the work of twenty men.

The separate threshing machine driven by belting from the portable steam engine is still a familiar sight in the wheat fields of the smaller farms in the middle and central western States; but with the opening of the huge wheat ranches of the west there has been developed and brought to a very practical standard a combined harvester and threshing machine. These machines cut, thresh and sack the grain at one operation. As they travel through the field, one sees the cutting bar, 15 to 25 feet in length, slicing its way through the standing grain, and, on the other side, he witnesses the steady delivery of the grain in sacks ready to be hauled to the railway elevator. The cutting bar is 25 feet long, the separator or thrasher measures 64 inches, and has a capacity for cutting and threshing 65 to 100 acres of wheat per day, the amount depending upon the condition of the grain to be harvested.

As a matter of comparison between the power-propelled and the horse-drawn machines, it may be noted that the cutting bar of the horse-hauled harvester is 16 feet long and the thrasher measures 36 inches, and it can cut from 35 to 40 acres per day.

The harvesting expenses, when using the steam harvester, are from 35 cents to 50 cents per acre, while the horse-drawn machine operates at an expense of from 50 to 70 cents per acre.

Relative to the early importance of grass-cutting and grain-reaping machinery, in 1840 there were three reapers made, and less than that number of people were employed upon them. In 1845 fifty people were employed in the manufacture of 500 machines. In 1850 the production had increased to 3,000, and in 1860 20,000 machines were produced, in the manufacture of which 2,000 people were employed. About the year 1880, shortly after the automatic cord binder was perfected, there was an immediate and marked increase in the output. In 1885 more than 100,000 self-binding harvesters were sold, in addition to no less than 150,000 reapers and mowers, 20,000 hands being engaged in their production.

This advance in the farm-machine industry seems remarkable; but the increased output has been far from keeping pace with settlement of vacant farm land, especially in the States west of the Mississippi river. While the steam and gasoline tractor are associated with modern agriculture, the inventor has also greatly improved other devices needed for farm work. The modern threshing machine is equipped with an automatic head cutter, self-feeder, automatic weighing and sacking device and pneumatic swinging straw stacker, the necessary power to operate all of these being either a gasoline or steam traction engine. By the old method of handling wheat the time required to produce a bushel was three hours. The modern harvesting machines reduce this time to ten minutes, the original cost being 17½ cents per bushel, as compared with 3½ cents per bushel now. The old threshing machine had a capacity of 175 to 225 bushels per day; the modern machines can handle 2,000 bushels and more in the same time.

A similar advance has been made in machines for handling the hay crop, by use of the self-dumping sulky, steel hay-rake. This machine can be operated by a ten-year-old boy, who can do more and better work than could a man using the old method. The hay tedder enables the farmer to cure his hay quickly, and to improve greatly the quality of the hay. By means of the hay loader, timothy, clover or alfalfa can be taken direct from the swath and loaded on the wagon. With the modern sweep rake the hay can be

taken direct from the swath or cock and put into the stack with the hay stacker. Extensive use is also being made of the derrick hay fork, especially when the hay is to be put away in the mow.

In the modern methods connected with the corn harvest the old custom of pulling the ears from the stalks and leaving them to wither or rot in the field has been abandoned by the successful farmer, who makes valuable use of every part of the plant. The seed is planted by mechanism, which distributes it evenly throughout the field. The horse or motor-driven cultivator replaces the hand hoe, doing the work far more thoroughly and more rapidly. When the crop is matured the modern corn binder cuts and binds the corn into bundles ready to be put in the shock. One man with a corn knife can cut about one acre of corn a day; the modern corn binder cuts and binds six to ten acres a day. The binding, husking, shredding of the stalk and putting it in the silo are done by machines that are driven by belting connections with the steam or gasoline engine. The silo, which may be large enough to hold 100 tons of stock feed, has a sheet-iron pipe extending from the top, ending in a movable joint. The upper part of the pipe opens to an exhaust fan. This fan, revolved from the same source of power, draws the ensilage through the pipe without the use of even a pitchfork.

Fertilizing a field by the old method is attended with much labor and needless expense, even where the farmer uses barn manure, which costs him nothing. If he follows the old way, the manure is slowly loaded into the wagon with the familiar pitchfork, slowly hauled to the field, while one man unloads the wagon and another spreads the fertilizer over the ground. A day may be required to cover an acre. If the back of the wagon was equipped with the device known as a manure-spreader, merely the pull of a lever would set it in position, and, as the wagon moves along, the spreader would automatically cover the ground with an even depth of the manure, leaving no bare spots for the plants to spring up and die, as is so often the case where the pitchfork is used.

Late statistics of the manufacture of agricultural machinery show that the annual output in the United States has increased from a value of \$112,000,000 in

1905 to over \$130,000,000 at the present time. This indicates that the farmer who works with his head as well as his hands is rapidly increasing in numbers, and realizes the results he can attain by modern mechanical methods. There is no question that within ten years the farms all over the country will be far better equipped for the growing of larger crops to the acre at a far less expense than the cost of cultivating a smaller acreage largely by manual labor. Intensive farming is the cause of the farmers' success, and modern mechanism is an aid of vital importance in attaining success.

Intensity has been displayed in few inventions more notable than those which concern the soil and its products. The inventor has so reduced actual human labor in field and garden that a man can perform nearly every operation required by merely the turn of a wheel here and the pull of a lever there with one hand while he guides his horses with the other. He can actually plow, cultivate and seed 100 acres without walking a step, and, with has two or four horses and machine, will accomplish as much as a dozen or a score of men with hand tools. This accounts for the increase in the use of agricultural machinery, as proved by the statistics quoted.

When one stops to consider what these figures mean, he can get some conception

of how machinery is aiding in the industrial revolution of agriculture. Invention has been stimulated by the demand for labor and time-saving appliances; but this demand has originated from the desire of the agriculturist to apply methodical ideas, as in other channels of human activity. As he has studied his vocation, he has realized the great opportunities of which he can take advantage if he has adequate facilities.

If a man believes he can make a thousand or five thousand dollars more by adding to his acreage, he is strongly tempted to make the addition, especially when modern methods will give him the desired result without overwork. This is the secret of the expansion of many of the western farms to their present size, some aggregating 50,000 acres under cultivation. Not all their owners have succeeded, but many have done so, and the stories of the rural capitalists who direct operations from their automobiles and drive over their places behind teams of thoroughbreds, have more than a grain of truth in them, as the camera proves. But they are of the class who use their heads more than their hands, bearing the same relation to their property that the president of a cotton mill or of a foundry does to his industry.

The Lack of Privacy in the American Home

ANOTHER man's point of view is always interesting and when an English person writes of American homes—and Canadian homes are somewhat like those to the south—it is interesting to pause and examine the essay. Mary Mortimer Maxwell writes charmingly on this subject in the *National Review*, as follows:

The typical American home has every comfort, every convenience, almost every charm except one. This one thing lacking, according to the English point of view, is privacy.

No visitor from England, especially if she be a housewife, can fail to experience

a certain pang of discontent with the old-time inconveniences and certain discomforts of English housekeeping when she notes her American cousins living in the midst of such contrivances as almost make it possible to keep house by machinery and the turning of a crank. The first American "pully-line" which I saw fastened to a New York kitchen window filled me with awe as well as admiration, especially when I found a pretty, young married college graduate standing at the end of the pulley-line hanging her family wash on it as she stood behind her sweet lace kitchen curtain, where she herself could not be seen from the outside, giving

a twist to a little hinge and then seeing all those clothes swung out into space to dry in the sun while the charming young washerwoman took off her apron and went with me to a matinee. That experience gave me a feeling of indignation against the London landlord who failed to provide pulley-lines and all the other things which the New York landlord "threw in" with the rent when one hired a flat or a house over there.

Bless me! A goodly number of English landlords have allowed me to supply my own door-knobs and fireplaces, while as for giving me a medicine chest with plate-glass mirror door in the bathroom, a quaint set of stationary wash-tubs with lids in the kitchen enclosing hot and cold water taps and all such things—well, we are all quite aware that such things are never done in England, except upon the payment of a weirdly high premium. There is, however, a certain amount of lavishness upon the part of the London landlord when it comes to the matter of doors; doors which shut one room off entirely from another room and from the passage or landing, thus giving to the occupant of each room a certain amount of privacy and opportunity for the development of individuality. The American landlord is correspondingly stingy in the matter of doors. Yet "stingy" is not the word, either, for I am sure that the prettily ornamented archways, with their carving and fretwork, which lead from one room into another, must cost more than our ordinary English doors on hinges. Sometimes one finds these archways, especially in the modern flats of the large American cities, connecting five rooms, one after the other, and sometimes the effect is as pretty as possible, it gives such an air of space and grandeur.

In an English home occupied by persons of moderate means one is always coming up against a door which seems to warn one off approaching the premises. It is very uncompromising, that English door, and even though your own sister, your own mother, your own wife, or your own husband is on the other side of it, you would not dream of turning the knob without first knocking. The fact is that the nearer the tie which unites you to the person behind that door, the less likely

you are to intrude upon your presence when you are not sure of a welcome. So you knock, and you wait to hear a voice you love say, "Do come in!" or "No, dear, not now. Don't disturb me. I want to be alone." "What! that formality between husband and wife, mother and daughter, father and son!" the American woman exclaims, and she puts down the English as being "stiff in home relations." But we know it is not "stiffness" nor even real "formality." It is but delicacy and courtesy.

I cannot fancy a well-bred English child entering a mother's room in the hearty, bouncing, familiar manner of the average American boy and girl, who, having no privacy of their own, have never been taught that other persons want privacy, and know nothing of the real significance of the knock and the answering "Come in!" Scores of times I have visited American mothers whose children have bounded, unannounced, into bed-room or dressing-room every afternoon as soon as they returned from school. The mothers took it as a matter of course. So did the children. These same little boys and girls, too, have a way of going to mother's dressing-table drawer when they happen to want a handkerchief or a collar; they pick up her toilet soap and use it; they comb their hair with her comb, brush their clothes with her bonnet-whisk. Their father's toilet accessories they pick up and use with the same lack of respect for individual rights. They are little socialists of the worst kind, living in the belief that all family things are held in common by every member of it. Indeed, very frequently in really nice, well-to-do families the children are not supplied with all the requisites of a proper toilet. Mother brushes and combs their hair with her own comb and brush, wipes their faces with her own towel, allows them to go to her manure case and use her file and scissors.

"Will you please lend me your brush?" asked a little boy of me one afternoon. I was the guest of his mother for a week-end visit in a beautiful suburb of Chicago, and he stood in my bedroom doorway. "Brush?" I said interrogatively. "What kind of brush, my dear?" "Hair-brush!" he answered. "Mother's sick with a headache, and so I can't go in her room to get it." "How did you lose your own

hair-brush?" I asked. "Of course, you have had a nice one of your own!" "Haven't got any brush. Never had one of my own, I guess!" was his answer. He was eight years old, and his father was a professional man with at least eight hundred pounds a year income, and his mother was a gentlewoman and a university graduate with a degree. In England I have never been brought into contact with a child who made a practice of using his mother's hair-brush, except among the poorest classes.

This little American boy who had no hair-brush had a wonderful mechanical bear which played antics all over the drawing-room floor, and must, I am sure, have cost at least four pounds. He had expensive clothes, attractively made. He had a silver watch. His father often gave him three or four shillings to go and spend as he saw fit. The same little boy slept in a room connected with that of his parents by an archway and no door—a room which he had no means of entering or leaving except by passing through their bedroom. The house had several rooms unoccupied. There was no need of crowding; yet this little boy had no proper bedroom, no play-room of his own, no nursery, no chest of drawers in which to keep his own clothes entirely by themselves. His playthings were kept in the hall, or the dining-room, or the drawing-room, or out in the back yard, or in the coal-shed, or in the kitchen—the kitchen from which dozens of cooks departed during a year, and small wonder! What servant wants a child's toys underfoot when she is making that most delicious of American dainties, a chocolate layer-cake? If this little boy had a sister, she, too, would be a part of the time in the kitchen, trying to help cook stir the pudding batter when poor cook was beside herself preparing the dinner; demanding to be allowed to put a caterpillar under a kitchen tumbler and see it turn into a butterfly, or put a bulb in a cut-glass pickle-jar and watch it develop into a plant. And one could not blame the little girl. She would have rights in the matter of preparing her doll's toilet and the study of natural history and horticulture. But her American parents might not think of providing her with a play-room of her own.

This same little boy and his imaginary sister ought to be invited occasionally to have tea with their mother in the drawing-room, and even to see visitors when they were asked for. I think they might very reasonably have their breakfast and luncheon in the dining-room with mother; but as for a seven-thirty o'clock night dinner, certainly never that for many a long year. But the American child at the night dinner-table is such a frequency that it might almost be said to be the rule. The average American child knows nothing of a good, wholesome six o'clock supper of bread-and-milk or one of those wonderfully nourishing American cereals with some fruit.

But the member of the American family to whom my thoughts turn in greatest sympathy in regard to the lack of privacy and the denial of an opportunity for the cultivation of individuality is the father—he who pays for everything, buys the house with his own earnings or hires it, and yet generally has not so much as a corner that is his very own. It is called "his house." It has many rooms. There are the drawing-room, the living-room, the dining-room, the library. There are numerous bedrooms and dressing-rooms; but if he really desires solitude, there would seem to be nothing for him but to lock himself up in the bathroom. Sometimes you hear the members of an American family speak of "father's den," to be sure. Why, just before I left America a New York friend, when she was showing me through her new house, said to me, "This is my husband's den," showing me into the sunniest and brightest room in the house. My eyes rested upon antimacassars and tea-cosies, a copy of "Poems of Passion," an embroidery frame, a train of "choo-choo cars," and a box of such American confections as my soul delights in and which no manly man could possibly be seen eating. I looked about for rows of curious pipes, for a horribly dusty and disordered writing-table, a lounging jacket—out at elbows, but, oh! so comfortable after the work-day coat—a copy or two of a sporting paper; but not a sign of such male witness to masculine ownership of that room did I see. "It's the sunniest room in the house," went on that wickedly selfish little American woman, "so the chil-

dren and I spend a great deal of time here."

I have been shown through other American homes where the husbands had their "own" dressing-rooms, their "own" hanging cupboards, and have noted with surprise the complexion balms, bodkins with pink lace ribbon ready for running through lace, bonnet-whisks, and cut-glass powder-boxes lying upon the chiffoniers along with military brushes and safety razors. "I do believe in separate dressing-rooms and separate dressing-drawers, don't you?" the fond wife would gush, and then she would show me her husband's "own hanging cupboard," which, being fitted up with a new kind of patent trousers-stretcher which she found exactly the thing for keeping her skirts in nicest order, she had taken possession of up to the farthest and darkest corner, where a pathetic and lonely great-coat might hang on a solitary peg.

There was a time when I thought that perhaps the American man liked all this, or that, at least, he did not mind it; that perhaps the sight of his wife's petticoats hanging among his belongings in his "own cupboard" appealed in some way to his sentimental nature and his sense of romance. But finally I discovered that he permitted himself to be "put upon" merely for the sake of peace and family tranquillity. I found that he really would like his den to himself, just like an Englishman, in all the masculine glory of dust and disorder; that though he loved his wife, there were times when he would prefer to spend his evenings alone in his den without her company; that though he loved his children, he would rather have them safely in bed before seven o'clock than have an evening with them climbing over his tired legs. In short, I found him very like the average English husband and father in this respect. He merely differed in the inability or the lack of determination to set his large foot down squarely and warn intruders off from the invasion of the privacy of his soul.

They have wonderfully comfortable and convenient bath-rooms in the American cities, even in homes of the most moderate rentals. In England people paying rentals of this sort are still using the tin tubs of the grandfather's-chair shape, brought to their bedrooms every

morning, and in which they may splash up all the wall-paper. People of this class have not the tiled floor, the porcelain tub, the up-to-date plumbing that one finds in the cheapest flats and houses in American cities. But some of those lovely bath-rooms were to me pathetic witnesses to the lack of privacy of the various members of the family. There would be rows of toilet-brushes hanging along the walls, rows of towels, rows of other things, showing that it was the family wash-room. Such homes usually have no individual wash-hand stands in each bedroom. They take up room and make work. Or, even if their bedrooms are thus fitted up, the members of the family have formed a habit of running into the bathroom for a wash-up because it is easier and quicker. Of course, I do not now refer to those more luxurious houses where in each bedroom there is a fitted basin with hot and cold running water, but to the more humble homes. To the average outsider who is at all observant the first thought upon visiting the average American home is, "Oh, you have so many delightful things, so many conveniences, so many comforts, how is it you have just this one thing lacking—privacy?"

In America they know little of the old-fashioned "mother's room," the room which has mother's individuality so stamped upon it that all through life the children remember it as being a very part of mother. And father's room? As I have said, he has no room, though there be twenty rooms in the house. All day long, at business, he is in the midst of noisy, hurrying people, clerks and stenographers, and at home there is no diminution of the number of persons who may disturb him. Let him try to get off by himself and lock a door—if he can find a door—and he will be suspected of having a secret sorrow, or, mayhap, a secret sin.

Certainly the American middle-class homes in many ways are more tastefully arranged than the English homes of the same class. Take the American bedroom and the English bedroom, for instance. Who could hesitate between the two for prettiness and convenience? The English idea of a bedroom is a place to sleep in, bathe in, and get out of as soon as possible. You feel that as soon as you look at it. Its draperies are few, its rugs are sim-

ple, its walls are often almost bare, and in the window the dressing-table stands, its ugly wooden back facing the street, flung up against the window, adding nothing to the attractiveness of the house or the street. In America the bedrooms are pretty. Indeed, there seems to be a general desire to make them look as little like bedrooms as possible. Sometimes I think that Americans, down in their hearts, consider a bed an improper piece of furniture, to be hidden away, when possible, in the form of a writing-desk, a wardrobe, or a Turkish divan, and only exhibited for what it really is—a bed—at the last moment before getting into it. But certainly the bedrooms are pretty, and, in a general way of speaking, they seem to belong to nobody in particular.

I have a fancy that after a while the American home may develop into one immense room separated into compartments only by screens—there seems to be such an objection to doors! The American architects plan for a few enough doors in all conscience, but even those they do put up are often taken down off the hinges, stored in the cellar, and replaced with draperies. Once, a few years ago, moving into a beautiful New York flat, I found the previous tenants had done this, and when I asked the janitor to bring the doors from the cellar and rehang them, he viewed me with suspicion, and asked, "An' so ye be goin' to take boarders, ma'am?" "Boarders!" I exclaimed. "Certainly not!" "Then why do ye want the doors, when draperies is so much more stylish?" he asked.

From the doorlessness of the flat and house of the large American cities is but a step to the fenceless state of the pretty village homes, into whose lawns and gardens stray chickens, cats, and dogs wander and scratch at will. They make a beautiful sight, these quaint built houses, one after another, without fence or hedge, the well-kept lawns coming down and joining the pavement along which grow those rows of trees which will ever be the delight of all foreigners who visit the American

villages. Truly they are prettier than the hedged-off houses of the English towns, with their garden walls topped with broken bottles to warn away the cats and other marauders. But one wonders how a garden-party could be managed in these very public American village lawns; how a tea-table could be arranged under the trees, and the tea and cakes really be enjoyed with all the rest of the world looking on.

And then the windows with the lights burning! Is there in all America such a ceremony as the "drawing of the blinds," one wonders? There is in England still that antiquated practice of the housemaid going about at twilight holding a lighted taper in one hand as she draws down the blind with the other before she lights the lamps or gas. There is here the horror of having the passing public witness even the "lighting up" of the home. I would certainly do away with the lighted taper habit—it is so apt to set the lace draperies afire; but I hope that the ceremony of the "drawing of the blinds" will last as long as the Englishman's home is his castle. Indeed, it must last just that long. In America sometimes the blinds are drawn, sometimes not—more often not, I think. One may pass dozens of drawing and dining-rooms in the evening, all brilliantly lighted, the members of the family gathered about the piano or the table, minding not that the curious stranger in the street may peep in. Why, even the young lady receiving her fiancé in the evening often forgets the drawing of the blinds. Then, even where care is taken to draw the front blinds, there is a shocking amount of thoughtlessness among persons occupying back rooms, in many cases not even the bedroom blinds being drawn when the gas is lighted.

And it all comes back—this lack of privacy in the American home—to a want of doors of one sort or another, doors to shut one's self in and to shut others out, that one may enjoy, at times, the privacy that is the right of every individual soul.

Crossing the Profit Line

THE big leaks in business can rarely be seen at close quarters, says Cornelius S. Loder, writing in *Business and the Book-Keeper*. The urgent needs of the moment shut off the view. Yet these big leaks must be discovered. They are all-important. They cause the most serious drains and gradually take large, profitable concerns down across the profit line.

Nothing is more important to a business man than the ability to get outside and see how he stands in relation to the rest of the business world. The artist as he paints his picture steps back from the easel now and then to see the general effect. If he remained close to his work all the time, his picture would be a failure. The business man in his work has the same need. He must stand back, get the larger aspects of the organization he is building, and when he finds he is being led into a mass of useless detail, to cut it out with a few broad strokes.

All the office employees of a large public service corporation were crowded into one floor of a building that it had occupied for twenty years. Room had been found for additional clerks and stenographers by shoving desks closer together, until in the course of time working conditions became unbearable. There was so much confusion and noise that concerted thought was impossible, and in dictating letters it was frequently necessary to raise the voice or repeat a sentence.

On account of the unsystematic arrangement more serious complications also arose. Work was poorly distributed and in many cases overlapped. Telephones were constantly ringing in all parts of the office, and the passing of clerks between the desks caused constant interruption. Too many men were engaged on the work in hand, but there seemed no help for it, as they were always behind. Finally, however, a change of management came about and the new man in charge promptly altered the situation.

He began by placing all the stenographers in a sound-proof room with a competent woman in charge. Through her all the assignments to work were made, and she soon found that the work could all be done promptly and without

working overtime, although formerly this had not been the case. She eliminated favoritism, distributed the stenographers so that they became familiar with all parts of the establishment, and before long had an intelligent active corps under her. Subsequently, when several of the stenographers left, she found it unnecessary to fill their places.

This single move did away with a large part of the confusion, and the establishing of a telephone desk relieved the different departments of most of the calls they had formerly been compelled to answer. The man at the telephone desk heard every call, and it was soon discovered that it was not necessary to refer more than a small percentage to the departments in question.

The lack of confusion in itself gave the clerks an opportunity to arrange their work so that it could be done with the least interruption, and, besides the establishing of a general systematic arrangement for the office, placing closely together those departments which had the most to do with each other, the work of readjustment was accomplished automatically.

Upon examination of the work done by the various departments it was discovered, however, that the agents of the company spent a good deal more time in the offices than appeared to be warranted. Desk space had been allotted them and they made the occasions of their morning visits an excuse to waste a large part of the day, quite aside from the disturbance to the office which their presence caused.

Inquiry disclosed the fact that their places of residence were scattered pretty well over the whole city and the new man took advantage of this circumstance. Instead of keeping the agents in the office, a desk was sent to the home of each and the city was restricted, enabling the men, as far as practicable, to work adjacent to their homes.

The agents liked the freedom from continual supervision, and saved so much time going back and forth that they were able to increase the number of their calls by one-third. Through the telephone desk they kept in constant communication

with the office and were only required to report twice a week at the office in person.

The additional number of calls had the effect of building up the business to the proper point, and the absence of the agents from the central office not only resulted in less confusion, but gave additional room in the same amount of space. When the plan was fully worked out it was even possible to dispense with forty per cent. of the space which had formerly been overcrowded, and although the business had increased a third, it was handled with fewer employees.

The actual saving in the salaries of employees was \$10,000 a year, and the additional increase of one-third in the business was made without increase in office expenses.

A concern engaged in an important branch of the textile industry brought about economies involving these same principles in an even more concrete way. The whole process of the industry was completed by big, single, expensive machines. The concern had two of these, one at each end of a large room, the raw material being brought in at both ends of the room and the output gathered in the middle. Each machine was operated by two men, one on a side.

The business was one where profits were made on a narrow margin, and competition had become so strong that this concern found that it would have to cut down its dividends unless it were possible to increase the output. It was at first planned to rent another large loft, equipping it fully, and continue with the old machines without change, but it took very little figuring to show that the result would merely be a larger capitalization with no increase in dividend.

Finally, however, the problem was worked out in this way: Instead of renting more space, it was found that the machines could be operated without inconvenience although quite close to one another. The two old machines were consequently moved into a position alongside of each other and a new machine was placed in the same row. This, of course, had the immediate effect of assembling all the raw material and cheaper and more efficient methods of bringing it to the machines were readily devised, but the greatest saving came from the discovery that

with the three machines in a row, fewer men were required to handle them. Formerly there had been two to each machine, but by a redistribution of the work it was found that three men could operate the three machines with less confusion. This also had the effect of securing greater speed from the machines and by increasing the pay of the workmen it was possible to secure the services of first-rate men. The machines no longer suffered from inefficiency in their handling, and the company, although paying higher wages, was saving \$8 a day on labor.

This simple change in arrangement brought about a greater utilization of space, increased efficiency and economy.

Leaks that stop dividends are frequently not discovered until they have caused a serious drain over a long period. The larger the establishment the more likely this is to be true. A manufacturer of machinery for other industries had two separate machines, which he turned out on a large scale for two widely different trades. Many of the parts for both were made by the same process, and until a systematic overhauling of the shops was made it was impossible to find out how much of the cost of operating the plant could be laid to each machine. The concern always made money, but with the growth of competition it was discovered that the business was at a standstill. This proved a sign of warning, and a thorough investigation was undertaken.

Here was a case where the cause of trouble was not apparent on the surface. The work was well handled, the men were efficient, and the management had been economical. Still there was obviously a big leak somewhere.

Beginning at the bottom, factory costs were carefully compiled and the exact expenditure on each machine was determined. This brought to light the fact that one of the machines was being sold at a loss and the other at an excessive profit. An examination of the books made it plain that the one sold at a loss was selling much more rapidly than the other, and it had only been on account of the unreasonable profits made from the second machine that the first could be sold at all.

Looking back over the books for a number of years it was further shown that the sales on the machine that was losing

money was steadily increasing and the sale on the other was as rapidly decreasing. The company had reached the line of profit on the downward course and in a little while would have been operating at a loss.

The remedy in this case was not merely a matter of prices. The business had been going on for so many years that it was not possible to raise the price on the losing machine, and it was not advisable to cut the price on the paying machine until the loss on the losing machine had been at least in a measure remedied.

In the effort to get around the difficulty the mechanism of the losing machine was carefully studied with the aid of a mechanical engineer, and it was found ultimately that a number of minor changes would make a better machine. These improvements were worked out in detail and patented. The general appearance of the machine was somewhat altered, and, after a systematic advertising campaign, it was possible for the salesman to go on the road and charge an increased price for the altered machine, although they could not have done so with the old machine. In this manner, the losing machine was placed on an independent basis without sacrificing any volume in its sales, and the paying machine, which had not been getting its share in the business, by reducing the price to that of competitors who were not producing so good an article, doubled its sales the first season and increased the net returns. With both machines on a paying basis, the big leak was stopped, and the business of the man distanced all competitors.

A number of years ago a firm of importers that sold standard qualities of white goods in this country made an arrangement with a commission house to handle the American business, but after a short time, the trade suffered to such an extent that the importing house was called upon to interfere, and, in order not to lose this valuable agency, the commission house submitted to a reorganization of its methods under the direction of the importing house.

When the experts examined into the methods of the business house it found that it placed men on the road at so small a salary as possible, and had no standard of payment. It secured men for as little

as possible and distributed the territory in such a manner that the amount of sales from each man was about the same. There was also no fixed price. There was a catalogue price, and some of the better salesmen were able to sell at this without difficulty, but whenever a man wired the house that he could close a big deal by cutting the price, the permission was granted. It had not taken long for this vacillating policy to become known in the trade, with the result that the good men, who would otherwise have been able to maintain the price, found that they could no longer do so.

The experts began by fixing a price that was under no circumstances to be cut. For a time it caused a reduction in the sales, but drastic measures were necessary to re-establish the goods in the trade. Then the territories were redistributed according to possible business, so that each man on the road could make plain the full value of his services. In this way there was no difficulty in finding out immediately who were the good salesmen. They were all placed on an equal basis, and only efficiency counted. For the time, however, each was given a drawing account according to his gross sales for the previous six months. But, after the next six months had elapsed and a readjustment was secured, the drawing accounts were figured nearer to the capabilities of the salesman. Expenses were also figured into salaries and a motive for economy established. A bonus system was introduced which affected all salesmen equally, creating a spirit of organization and resulting in general efficiency.

This was a case where through bad management the business integrity of the foreign house had been impaired, but only organization and readjustment was necessary to remedy the evil and maintain a standard of goods at its standard price.

A situation almost exactly the opposite faced a concern that sold throughout this country and Europe. For many years it had been the custom to restrict sales to houses of the highest credit standing only. This had proved a safe policy, and there had been few credit losses, but the activities of competitors who had been much less choosy in their selection of customers had seriously affected their market, even where the goods stood side by side upon the

shelves. The general public had come to know the other brands better.

The old business methods had become encrusted, and as the officers of the company hardly felt equal to the task of re-adjusting their business to the changed times they called in some new blood. It was not long before the new element in the firm had induced it to adopt a radical change of policy. The company proceeded to extend its field of operations and to sell small hills of goods to customers whose credit was not first-class. The field force was increased to meet the new policy, and, without risking any very great stake in individual cases, the gross sales were increased sixty per cent. This meant a large addition to the factory, but except for additional salesmen on the road, did not cause any additional expense in distribution.

The losses on the total business increased, none, of course, on the high-class business, but the losses were more than made up for by the lower cost of production. The most important consideration in the situation was, however, in bringing the goods more prominently before the purchasing public. They were no longer hampered by too limited an output. The goods were now in general use, and all the advertising value of that fact was taken advantage of in making the next step.

The cautious officers of the company having figured that even aside from these larger advantages they were in a better financial position than formerly, changed their entire policy of business and devoted their attention to placing their goods in every available house. Newcomers, whom they had formerly scorned, they trusted with good bills of goods without looking up their credit. The goods, in consequence, were now seen everywhere, there was a universal demand for them and no houses of any pretensions could afford to be without them. And here the company had a check over its customers it had never had before. It would not deliver a second bill until the first had been paid for. So customers paid promptly as they had to have the goods. Its credit losses grew, of course, with the business, but decreased in proportion to its volume.

As serious as is the waste of material resources, through lack of system or un-

derstanding of commercial problems, more serious is the waste of energy through the misdirection of effort. A concern which had at its head an extremely active man, capable of doing large things in a large way, was induced to direct his attention toward handling a comparatively small article for which there was almost universal need. Big profits were undoubtedly to be made from it, but the house which took it up was not capable of adapting itself to that type of work. But having assumed one small article which required endless detail, it was found impossible to handle it at a profit without having other similar small articles which would help pay the expenses of marketing it.

In this way gradually the house had got deeper and deeper into this small business, wasting its energies over small matters, involving its capital in such a way that it was unable to pay the dividends which had long been continued from one meeting of the board of directors to another. The concern was gradually going down across the profit line.

The situation was nearly desperate when outside aid was called. It was found by the most casual examination of the firm's affairs that the head of it and the man who had the most money involved, had no capacity for details, and this business was one of infinite detail. As long as he had continued in larger affairs he had made money, but it was only with the greatest difficulty that he was now able to keep his head above water. He had been in middle life when he had made the change and he was now rapidly approaching a disastrous old age.

Vigorous measures were necessary. One by one each of the small lines had to be given up. Other houses which had a greater aptitude for this class of business were willing to buy them, and although this involved a loss in each case, they were sold. One line, finding no purchaser, was entirely dropped, although it had been bringing in a small earning.

While this was being done, the head of the house was induced to relinquish his hold on that end of the business and direct his attention once more to the larger business in which the house had formerly been engaged. He did this, and finding himself in more congenial surroundings once more, went ahead rapidly, but the smaller

lines had impaired his capital, and he returned to his proper business with less money and several valuable years gone from his life.

A leak less generally recognized as such is frequently due to the desire to cut costs by manufacturing or buying in larger quantities than the need justifies. It is all right to produce steel rails or standard grades of clothing when labor is cheap, or purchasing them when their price is down, but the range of standard articles which will keep is limited.

One concern which had been manufacturing dairy supplies for many years con-

tinued at full capacity during a dull season, with the intention of closing down altogether for a short period later. But after it had produced more utensils than it could dispose of in the whole of the following season, an entirely new article appeared in the market which jumped into immediate favor with dairymen. It was possible for this concern to manufacture a similar article, and it was forced to do so, running the factory full blast during the period it had intended closing down, and the surplus from over-production of the old article was got rid of at a loss.

The New Science of Management Criticized

IN summarizing the comments of the technical press on Frederick Winslow Taylor's book, "The Principles of Scientific Management," *Current Literature* first points out that the writer avows three fundamental aims.

The first is to point out through a series of simple illustrations the great loss which the country is suffering through inefficiency in almost all our daily acts. He would prove in the second place that the remedy for this inefficiency lies in systematic management rather than in searching for some unusual or extraordinary man. Finally he insists that the best management is a true science, resting upon clearly defined laws, rules and principles as a foundation. The fundamental principles of scientific management are thus applicable to all kinds of human activities, from our simplest individual acts to the work of our great corporations.

Under the old type of management, for instance, success depends almost entirely upon getting the initiative of the workmen. It is a rare case in which this initiative is attained. Under scientific management the initiative of the workmen (that is, their hard work, their good will and their ingenuity) is obtained with absolute uniformity and to a greater extent than is possible under the old system:

"In addition to this improvement on the part of the men, the managers assume new burdens, new duties, and responsi-

bilities never dreamed of in the past. The managers assume, for instance, the burden of gathering together all of the traditional knowledge which in the past has been possessed by the workmen and then of classifying, tabulating, and reducing this knowledge to rules, laws, and formulae which are immensely helpful to the workmen in doing their daily work. In addition to developing a science in this way, the management takes on three other types of duties which involve new and heavy burdens for themselves.

"These duties are grouped under four heads:

"First. They develop a science for each element of a man's work, which replaces the old rule-of-thumb method.

"Second. They scientifically select and then train, teach, and develop the workmen, whereas in the past he chose his own work and trained himself as best he could.

"Third. They heartily co-operate with the men so as to insure all of the work being done in accordance with the principles of the science which has been developed.

"Fourth. There is an almost equal division of the work and the responsibility between the management and the workmen. The management take over all work for which they are better fitted than the workmen, while in the past, almost all of the work and the greater part of the responsibility were thrown upon the men.

"It is this combination of the initiative of the workmen, coupled with the new types of work done by the management, that makes scientific management so much more efficient than the old plan."

In the medley of comment favorable and the reverse which the new scientific management has inspired in the technical press of the land, that of *The Railway Age Gazette* stands out most prominently. This daily has studied the subject in a series of articles based upon what it deems the "mistakes of the efficiency men." Much of what they have said, it reminds us, has been allowed to go unanswerd. "The popular publications have welcomed them as the bringers of good news, who are to save us from the slough of inefficiency. Their statements appear to be accepted as scientific deductions which require no further proof." But merely to discuss scientific questions does not make one a scientist. One of the fundamental weaknesses of their propositions lies in the fact that, "posing as scientists," they have made statements and set up claims in disregard of the actual conditions. In what respects, now, are the efficiency men putting into practice the theories of Frederick Winslow Taylor in many cases unscientific in their attitude and methods with reference to scientific management? Our technical contemporary replies:

"First, in basing their conclusions on incorrect, insufficient, or immaterial data and in applying them to conditions which were absent in the initial investigation.

"Second, in criticising methods of operation without a full recognition of what they have accomplished and in substituting therefor a system which experience has shown to be impracticable.

"Third, in their impatience for results. "What is more common in their utterance than an imposing array of examples of extremely low efficiency, submitted as evidence that conditions call for heroic treatment, or of examples of high efficiency as a proof that their methods can alone bring order out of the chaos? A mere citation of disjointed facts, however, proves nothing. They are at best but half-truths, and as such are not only out of place in a scientific discussion of the questions under consideration, but are misleading. A disinterested seeker after the truth asks: 'If the unsatisfactory condi-

tions that have been described actually exist, are they due to a wrong system or to the absence of system; do they correctly represent average conditions, or are they only exceptional instances due to factors which are but local and transitory?'

"Efficiency men claim to be scientific, as contrasted with practical men who, they say, follow the rule of thumb. But a scientist publishes his conclusions only when, after extended experiments and observations, he has found the evidence sufficient to warrant giving them publicity. He is no scientist who hastens into the limelight with evidence based on scattered examples, found amid varying conditions, and risks the odium of his co-workers, by announcing premature conclusions. Among reputable physicians, chemists, biologists and other scientists, it is customary to delay the announcement of important discoveries ever far beyond the time which would seem under all the laws of logic to be required. The result is that when such an announcement is made it is backed up by a series of facts so closely related and so strongly fortified by innumerable examples bearing distinctly upon the question, that it is unusual, indeed, for it to require alteration.

"Is it scientific to use as evidence cases of low efficiency and consequent high costs and unsatisfactory service, or of improvements that have followed the introduction of efficiency methods, without an equally fair statement of all the conditions that surround the operations? Or to search through the records for an especially poor performance to set alongside an especially good one, irrespective of the causes and the general tendency in either case? All thoughtful accountants appreciate how misleading statistical data may be unless all the concurrent factors are taken into consideration and proper allowances made for them. Whatever the unit of measurement, it is unsafe and improper to draw definite conclusions from too narrow a range of data.

"A good record of one month may really be a poor one when all the facts are known. For example, in an industry where the different operations that precede the completion of a certain unit are scattered over a period of several months, the output during a particular month may, and usually does, bear no direct relation

to the cost of operations during the month in question. In a shop building steam engines, machine tools, passenger cars, or similar equipment, requiring perhaps two months or more to assemble complete, it is the height of folly to assume that the cost of the operations in a given month divided by the output represents the cost per unit, and indicates whether the results are satisfactory or otherwise. Yet this has been done and has been submitted as evidence in proof of the alleged phenomenal results that have followed the introduction of a certain system of shop operation."

The efficiency engineers are indelictable to our contemporary likewise not only on account of what it deems their extravagant claims and statements, but also owing to the failure of many of their theories when put to the test of practical application and to their neglect of the human element, in spite of their claims to the contrary.

Perhaps next to the failure of the efficiency men to appreciate the importance of the human element, the most fatal mistake they have made, adds *The Railway Age Gazette*, is their impatience for results:

"This comes often after many of the obstacles to their success have been removed. It is not confined alone to them; many practical managers have failed for the same reason. But in introducing a system of work that involves features which, while the principles underlying them may not be new, are strange to the men who are most vitally affected, impatience can undo in short order what it has taken much time and expense to build up. If it is true that man is a suspicious animal, the average workman has his full share when a new system is introduced. If it has merit, its success should not be risked by premature announcements or by assuming an uncompromising attitude toward the men. If there is great waste in shop operation, and this has been going on many years, why the impatience to change it all in six months or a year?

"Instead of establishing the system in one department, and proving its worth so unequivocally that it is demanded in other departments, certain efficiency men have urged its speedy extension to other departments for the reason that, unless it

is introduced into all and recognized as the established system, there is danger that it will fail in the department in which it was initially instituted. Such a necessity for its general extension is unworthy of any system which merits it. One of the most unfortunate results of the impatience that has caused shipwreck of so many well intentioned plans is the opportunity that is given to labor to organize and present a solid front of opposition to their establishment. It is both unnecessary and unscientific to demand or expect permanently satisfactory results in introducing scientific management without giving it time to grow in favor. If the efficiency men have profited by this mistake, which has been the direct cause of many of their failures, they have gained much."

These criticisms do not seem to impress the student of the subject who writes in *Industrial Engineering*, a technical organ which sees only themes for praise in the results of the efficiency men. Five years ago, writes Mr. Frederick A. Parkhurst, in the columns of our contemporary, the term "scientific management" would have conveyed nothing to the majority of minds. "To the minority it meant the highest imaginable development of a business through an exact knowledge and control of the most minute details incident to that business." To-day, we read, the modern business man recognizes the term as synonymous with maximum efficiency. Many instances can be given of the success of the new science when applied. Scientific management is initiated in three stages. There is a preliminary investigation, diagnosis of existing conditions and the application of immediate relief to particularly serious troubles until the new organization is under way. Next comes planning of the new organization and the making of a graphical chart for the instruction of employees from the president down. Then follows the organization record. The results attained by the efficiency men vindicate their new science. Nor is Mr. Parkhurst unmindful of the difficulties and of the sources of disappointment, or of trouble. The report is often circulated through the office and works, previous to the organizer's arrival, that a new man is coming to make them hustle. This report loses nothing by repeated telling. By the time the organizer

arrives everybody is in a situation but a proper frame of mind.

"Another common source of trouble is the lack of a sufficient organization with clearly defined responsibilities and duties for each incumbent of the various positions. This results in friction and misunderstandings; one man feeling that the other is treading on his toes, so to speak. The shop man feels that the man in the office is not attending to his work, that if he ordered material more promptly and made his orders more complete work would go through a great deal more quickly. The man in the office feels that he must personally look after the details of the work of the shop and is inclined to extend his field of activity into all branches of the business. This attitude does not necessarily show a desire to usurp the other man's job, or to meddle with his affairs, but is often due to excessive zeal in trying to further the firm's best interests, and is done entirely in ignorance of the demoralizing effect which such an attitude must have. Another serious trouble resulting from the need of a proper and clearly de-

fined organization is found in the unfair handling of the rank and file of employees. Under a modern system, this is impossible. While each man stands on a nominally equal footing with the others, his personal endeavors, ability and industry make possible his advancement, in the class of work, earning power and promotion, independently of the others. Suggestions are solicited from the men as to improved ways or means of doing work and are gladly paid for when it is possible to adopt them. Relationship, friendship or other possible "pull" has no influence. The "square deal" is the order of the day."

As the discussion of this subject proceeds in the technical press, it becomes increasingly obvious that sources of efficiency and energy previously unsuspected have been tapped by the new movement. We must not too hastily conclude, however, in the opinion of *The Scientific American*, that we are on the eve of a revolution in technical methods. The science of management is one to which psychology is a practical reality. That is a main point.

The Commercial Strength of Great Britain

THE British business man from the American standpoint is discussed in a very entertaining article in the *Century Magazine* by James Davenport Whelpley. We Americans are inclined to be impatient with English business methods, he begins. Our people come to London to close up some affair in which Anglo-American capital is interested, and expect to return within a week—perhaps on the return trip of the same steamer on which they came over. Instead of that days and even weeks go by before people can be seen and things accomplished. When they are concluded, the American goes home with tales to tell of how a "hit" of shooting, a week-end, a motor trip, a horse-race, a cricket or a golf match, or even a sick horse or dog, delayed his all-important negotiations indefinitely. When the first outburst of irritation has subsided, however, we learn of certain impressions he brought away with him from London which are worth while. First, he

is even awed at the apparently unlimited amount of real money, actual cash, which is to be had if he has the "open sesame." Then he will admit, if grudgingly, the sound conservatism, the accurate information, the keen analytical power, and the firmness of conviction possessed by the men he met and with whom he dealt. He will concede to them a knowledge of the far corners of the earth which brings India, South Africa, the Argentine, in fact, every place where English energy or money has been expended, within the familiar ken of the man who may never have been farther from London than the seashore, and to whom a crossing of the English Channel would be the event of a lifetime.

On the other hand, he will have met perhaps some of the army of international tramps who for pleasure or profit travel the highways and byways, observant, matter-of-fact, thorough, and so intensely English always that everything is judged

by English standards and looked at in its possible relations to English profits, political, financial, or commercial. It is these qualities, these characteristics, more highly developed in each succeeding generation, which have begotten that great unorganized volume of individual trading known as English foreign commerce.

In the matter of supplies, the English people are struggling for independence of the United States. The fluctuation of the American cotton markets has caused riot in the manufacturing districts. American trade combinations are held responsible for the high prices of food. It is this feeling which has helped along the spirit of empire in England and has led to heavy investments in the British protectorates in the attempt to develop new supplies of cotton, food-stuffs, and other raw staples. So far these expenditures have had no appreciable effect in diverting the trade from North America, and in view of the enormous supplies required, it will be many years before they become really apparent. If such a time does arrive it will also be indicative of a change in the character of American industry, for the energies of the people will have turned to other fields, resting content that the home market be supplied with raw materials rather than a surplus be created for export. For the seller of staples and raw materials is the least intelligent and least prosperous of the world's traders.

It is British capital that has developed the British Empire and trade follows capital investment. Roughly speaking, twenty-five per cent. of England's foreign commerce is with her imperial dominions, though virtually every one of these dependencies has enacted customs laws which demand toll from the trade of the mother country as well as from that of other lands. The only concessions yet made have been those of preferential duties. How frail a tie this may be upon which to found the commercial unity of an empire of which the pivot is a free market is shown in the fact that the imports of British goods into British colonies are now decreasing annually, while imports of foreign goods show a notable increase. It is also even more strikingly brought home to the people of England by the proposed commercial arrangements between the United States and Canada.

Leading English statesmen have designated the event as the "death of preference." Even those who have made this scheme the basis of their political credo admit the severity of the blow and the "narrowing of the margin" for the possible establishment of an imperial solvency.

That the United States and Canada should in time come closer together in matters of material interest has been inevitable since the settlement of the one country under two flags. It has been the wonder and despair of thoughtful men in the United States that such an arrangement was not accomplished long ago. It has been the wonder and satisfaction of British statesmen that it was so long delayed. The British people have been hugging the delusion for many years that natural laws could be rendered inoperative by sentiment and legislation; and that her lusty colony would remain content under the parent roof-tree and continue to contribute her earnings to the family purse even after the coming of age. This illusion has been, a most attractive toy with which the British politician has interested his audience and with which public attention has been diverted from the real dangers which threatened the peace and welfare of the home itself.

Acting under the almost incomprehensible theory that the home country was being strengthened in the building up of countries which, although under the same flag, treated her only as a favored nation. Great Britain has been drained of much of her expert labor and the fittest of the unemployed. These men, with their women and children, have been urged, even assisted to leave, while the lands of the British Island cried aloud for intelligents and economical tillage, the sweat-shops of East London grew apace through unrestrained immigration of the more or less undesirable, and the wage scales of industry remained at low ebb because of the cost of production through ancient methods and inefficiency. Like unto the mother of seven sons lost in battle, she gives of her children to the universal development and progress of the world, but the home is desolated.

To say that in this now fading illusion of empire there lies a tremendous and magnificent pathos is to seem almost irrelevant, for it is to the British nation, it-

world-wide and broadcast sowing of right-thinking men and women that the world owes its progress in the last two centuries. It is only because of the grasping of politicians for marionettes with which to amuse the crowd that the real meanings of the forces at work are lost sight of. The people are scanning far horizons for rainbows of promise when they have the materials beneath their feet with which to stop the now ominous gaps in the wall of home defense; and there are no better materials more quickly to be molded to desired ends than those which lie close to hand. Anything which will lighten the tolling mass of humanity, quicken the pulse and the intelligence, bring hope to the children of the hopeless, will do more to prolong England's hold upon the trade of the world than a hundred imperial conferences. To devise means to keep her money and her men at home and to give each an equal chance is now the problem which lies on the doorstep of the home citadel of this fecund mother of nations, who still abounds in incredible resources, strength and power, notwithstanding the demands already made upon her and to which she has responded with a lust for adventure without parallel.

No greater source of England's strength exists than that which lies in her dominance of the seas. It is not the armored vessels of which her people are so proud that contribute to her vitality, but the unarmed liner following its regular route, or the blunt-nosed, slow-speeded "timp," soon perhaps first at the London docks, then again a few weeks later at anchor in some far tropic port.

The tonnage of ships flying the British flag is nearly twenty million. The United States comes next with less than eight million and then Germany with less than four and a half million. A great percentage of the American tonnage is in the coasting trade, while that of England is overseas. There are no signs of decrease in this greatest of all the British industries, for in 1910 over 500 vessels were launched from British yards — figures which included 331 sea-going steamers, ranging from small yachts to the 45,000-ton new passenger steamer Olympic. In the United States 195 vessels were launched, and in Germany 117. Nearly 50 per cent of all the world's new shipping of

1910 carries the British flag. The very nature of England's trade demands this great merchant fleet, for her highways are those of the sea. Her greatest port of tonnage is London, the second is Hong-Kong, and the third is Liverpool.

To say that this great English industry stands on its own feet, that it is just as free from government aid or organized directing is as true as to say the same of the commerce it stands for. Many careless and intentionally or unintentionally misleading statements have been made concerning the aid given to steamship lines by the British government. With the exception of a favorable loan and a subvention conditional upon high speed arranged by the English government to secure the building of the *Mauretania* and the *Lusitania*, virtually no subsidies are now paid by England to further the interests of sea transportation. Statements are not uncommon in which all the amounts paid by the British government for carrying the mails and other services are lumped together and characterized as shipping subsidies. This is not really a fair statement, for the British Post Office pays for the carrying of the mails at the lowest ton rate which can be secured under the circumstances. In former years some subsidies have been paid; one notable instance was that designed to encourage the development of a line to the West Indies, but even this subsidy has been discontinued, owing to the refusal of Jamaica to continue payment of her half share of \$200,000 a year. That the payment for the mail services is based upon actual work done is shown by the fact that with each succeeding year less and less money is paid to the Peninsular and Oriental Line owing to the decrease in the amount of mail matter sent by that route. On the whole it may truly be said that English commerce, including the great shipping industry, is entirely dependent for success upon the intelligence and persistence of designed effort and activity.

"What England needs," said an Englishman to me, "is a tariff for revenue with a carefully adjusted degree of protection for home industry and the power such protection will give us to favor the products of the colonies." It was in the course of a smoking-room chat on a steamer northbound from South America

that this was said. My friend is the kind of man who would succeed anywhere—quiet, wasting no words, and commanding respectful attention when he does speak; practical to the last degree, and with a fortune, the profits of many years of successful trading, which speaks for the value of his opinion. "I am going home," he continued, "to stand for Parliament on the Tariff Reform platform. The constituency in which I shall ask for votes is one of laboring men. I shall tell them what I think and take the consequences." He did, and was defeated; but he will be in the field at the next general election in England, when he believes the tide will turn toward what he terms "a plain, common-sense view of the situation."

When his attention was called to the fact that the year 1910 witnessed an enormous increase over previous years in the figures of England's foreign commerce, he said, "Yes, it did; but a large part of the gain is accounted for by increased prices paid for raw materials imported and the corresponding increase in the prices received for goods sold abroad. The actual gain in bulk is not so satisfactory. An ominous feature of the so-called boom of last year is that according to the returns made by the labor organizations a much smaller percentage of unemployed labor was absorbed than during any trade boom of recent years. We are seriously wrong at the bottom and must put our house in order."

And now for a contrary view. A few weeks later I was traveling from Paris to London. Sitting in the so-called Pullman buffet car on the English end of the journey, I found myself opposite the kind of Englishman who is always promising of interest,—tall, strong, keen-eyed, rather good-looking, fairly young, and manifestly full of nervous energy and interest in life; hence entirely lacking the air of boredom which is cultivated by some as evidence of "good form." That exacting god worshipped by the well-born Briton at the expense of his enjoyment in life, and often of his progress. Presuming upon my American nationality, a possession which brings forgiveness in the minds of many Europeans for certain so-called eccentricities, one of which is speaking to strangers, I began a conversation. My fellow voyager was quite ready, in fact, eager

to discuss the questions which every intelligent Englishman is now debating.

"Tariff reform, protection—no, sir, that is not what England wants. We don't need it. Our trade has grown to what it is because it has been free. England has been and is the market-place of the world. In quality we manufacture as well as any people in the world, if not better, and if we keep pace with the modernization of industry we can continue to compete in price. Let me illustrate. I am an engineer, a manager of steel mills. The history of our property is that of nearly every other mill in Great Britain. The business was founded by a practical hard-working man, who by sheer industry, actual strength of arm, and personal knowledge of the abilities and character of the men whom he gathered about him, built it up to a creditable size. This business then passed to the sons, men who were better educated, better off socially, but still hard workers with an intimate knowledge of practical affairs and of the men in their employ. They sent their sons to the universities. When the time came these young men with university education, good social position, and much knowledge of many things unknown to their fathers, came into the ownership of the mills. In theory they knew what was going on, but not in practice, and they had no first-hand knowledge of the men whom they must place in immediate charge of the works. They now fail to see the necessity for capital expenditure, they do not realize that year by year the cost of production is being reduced, not by economy but by liberal expenditure, and by heroic discarding of plant still apparently useful. The articles they manufacture are still the best in the world as to quality, but they find the Germans, for instance, excelling them in beauty of finish and design, and what is more serious, they find the manufacturers of several other nations, underbidding them in price in, to them, an inexplicable way. These are the men seeking from without some relief from foreign competition, who are crying for protection."

"Some of the most ardent advocates of Tariff Reform among the iron and steel manufacturers are men who are still using the obsolete and expensively operated 'bee-hive' furnaces. Give our mills modern processes, well managed, and England

can compete successfully with the world. In brief, what we want at home is not protection, but the money now being sent out of the country for foreign investment. Delegations from our industrial people go to Germany and they see fine mills, clean, well-fed, well-housed workmen with wives contented with their lot; and they return convinced that all these advantages result from protection. They are wrong. Our competitors are merely taking advantage of the inventive genius of the age in the conduct of their business, and look upon the proper care of their work-people as part and parcel of an intelligent conservation of force and a tremendous factor in the cheapness of the ultimate cost of production.

Between these two extremes of belief, each held by many well-educated, intelligent, practical, and thoughtful men, stands the Liberal in theory, but who is for protection as a matter of expediency. He thinks that England is all right at the top, but that the laboring classes must be lifted out of the helpless rut into which he believes they have fallen. A wide distribution of education—paternalistic legislation for their benefit, old-age pensions, compulsory insurance, anything, in fact which will lighten the burden of the poor—enlighten their minds and give them hope. This man says the rich must rest content with even heavier taxation that the future may yield some promise of relief. This man would have protection, not because he thinks British industry needs it, but because he believes it might assist in his general scheme of raising the mental and physical standards of the people as a whole, thus aiding in the desperate struggle to keep the nation abreast of the times and to retain her present premier hold upon the trade of the world. He says it has been done in Germany all within twenty years, and could be done in England within a generation.

Politics in England means fiscal policies, economics. The party organizations are so incomplete and ineffectual that they have built up no considerable following which votes as it is told. Political beliefs in England to-day are marked by an individualism bewildering not only to the foreigner but to the citizen as well. The questions to be disposed of by future elections, which promise under the British

system to be of frequent occurrence, are those which deeply concern the integrity of the British Empire and the welfare of England and her people at home. The complexities of the problem are such that no man can say unhesitatingly that this or that policy is unquestionably the best, and few attempt to do so. And further, no man dares to predict confidently the immediate triumph of one or the other of the many remedies suggested by those who believe the situation needs remedy, or of the policies suggested by those satisfied with present conditions, but who view with apprehension the decreasing margin of distance between the England of to-day—the greatest trading nation of the world—and her active pushing rivals, hopefully following on apace.

There is no sign of decadence in England. By contrast with the rapid development of Germany and of the United States, she seems, however, to be progressing but slowly. It needs but a glance at her vast figures of foreign trade, encompassing as they do the world-wide field of human endeavor and industry, to gain some understanding of what has yet to be accomplished to retire her to second place. To British ports come vessels of every nation and to every seaport in the world are sent British-owned vessels on trading missions. Millions of tons of staples are bought by England in the country of their origin, loaded on British ships, and delivered to her customers elsewhere without touching British ports. In the warehouses along the Thames and elsewhere are concentrated the supplies of the world in many notable articles of commerce. The ivory of India and Africa are first brought here. The furs of the world are sold by auction in the London fur market. Mahogany logs lie on the London docks awaiting transshipment to countries much nearer to their native growth than England. In brief, this little island is the commercial heart of the world, and the slowing or quickening of its pulses is reflected on the bourses of the nations of the earth. With all the internationalizing of finance which has come about in recent years, England still keeps tight hold upon the purse-strings. The London bank rate is a governing factor from New York to Peking. England has been for generations and still is the great creditor nation.

More than £200,000,000 is scattered abroad annually. It is her money which builds the pioneer railroads, opens mines, dams the waters, and finances the lesser nations. From all these enterprises her people take their toll and seek new outlets for this increment. That too much money and too many men have been sent abroad attracted by promise of greater returns is probably true. She has bled herself too freely, and the heart now shows some signs of weakness. The rivalry of younger and more daring and strenuous peoples for the trade of the world is a severe test of her seasoned strength.

That she will yield in time may be true, and probably is, for history repeats itself. If the empire shall fall to pieces, it will be not in decay, but rather as the proud mother of many children reluctantly witnesses the departure of her sons and daughters into the battle of life, their inheritance one of courage, strength, self-confidence, and capacity for self-government; each with a notable share of the gold which has come to the parent purse from all quarters of the globe, and upon the investment of which is founded the prosperity and credit of these new nations, once upon a time England's dependent colonies.

A Twenty-five Million Dollar Bribe for Nature's Secrets

THE WORK of the Carnegie Institution in Washington is described in some detail by Charles Frederick Carter in the *Technical World Magazine*. How does a young loggerhead turtle, thrown upon its own resources in a selfish world from the moment it leaves the egg-shell, know where to go to take up the struggle for existence with any prospect of success? He begins:

Davenport Hooker has found out the answer to this conundrum. Equipped with a quantity of glass of different colors he went to the Dry Tortugas where he put in a lot of time placing the glass in front of young turtles. When they saw the ocean through red, yellow or green glass they would not move toward the water; but when they saw it through blue glass, or when they saw the blue glass or even blue paper, they crawled toward it with evident excitement. Hence, Mr. Hooker concludes, the turtle's sense of color guides it to its natural element. Imagine the predicament of a color-blind turtle!

On these islets in the Gulf of Mexico, about seventy miles from Key West, where the United States Government entertained a large party of Southern gentlemen nearly fifty years ago, the Carnegie Institution of Washington now keeps open house for scientific gentlemen from various parts of the world. Here the scientists eat canned goods while they

study original problems in marine biology, or else they study marine biology while they eat canned goods, I have forgotten which. Anyhow, it is one way or the other.

Many sensational disclosures have emanated from those glistening white sands since the biological station was established. It is now known that not only are loggerhead turtles possessed of a sense of color but that the gray snapper is similarly equipped. The scientific squad played a mean trick on the gray snappers which the Society for the Prevention of Cruelty to Animals would do well to look into. The snappers were tempted into developing a taste for sardines dyed red. When this had been accomplished some sardines were loaded by placing tentacles of the medusa in their mouths.

"Stung again," exclaimed the snappers as they dropped the loaded sardines. Thereafter the snappers would not touch a red sardine, no matter how hungry they were, thus showing that they knew a thing or two.

On the other hand, all colors look alike to the ghost crab, though it readily perceives moving objects and is sensitive to large differences in the intensity of light. But it is deaf as a post, its so-called "auditory organs" being in reality organs of equilibration. In spite of its handicaps the ghost crab has memory and, like the

gray snapper, can profit by experience, which is more than some people can do.

Prof. John B. Watson, making his headquarters at the marine biological station, was able to pry into the domestic affairs of the noddly and sooty tern on Bird Key. He reared the young birds and found that they could learn to find their way through a maze to their food. The adults could also learn to overcome obstacles in seeking to sit upon the egg. The noddly builds its nest in bushes, and in doing so is quite shy; but if an egg be placed in the nest it loses all shyness and sits upon the egg as if it were its own. Both male and female build the nest, but the male alone procures food for both during this period, the female constantly guarding the nest. After the egg is laid male and female fly away to fish, taking their turns at brooding the egg at intervals of about two hours. The egg hatches after thirty-two to thirty-five days of incubation. The noddly does not recognize its own egg but will cheerfully incubate anything that looks somewhat like an egg. It recognizes the locality of its nest and returns to the old locality if the nest be moved, but it will accept an artificial nest placed in the old locality without hesitation. The sooty tern nests upon the ground and recognizes the exact locality of its nest; if the nest be raised vertically, the bird readily alights upon it; then, if, after an interval, the nest is lowered the bird attempts to alight in the air in the place where the nest was formerly. A slight horizontal movement of the nest causes great confusion to the bird.

Birds taken from Bird Key to Cape Hatteras, eight hundred and fifty miles away, and liberated, returned in five days, although it is believed that they flew along shore and not by an air line, which would make the distance at least a thousand and eighty-one miles.

A number of other sojourners at Tortugas station have found out various things which they have set forth at length in the publications of the Carnegie Institution, not one of which has yet appeared in the list of the six best sellers. However, what the publications of the Carnegie Institution lack in popularity they more than make up in quantity. Although the Institution was organized only

nine years ago its publications in book form already aggregate 167 volumes, having more than forty thousand pages, or upwards of twenty million words of printed matter, while twenty-five volumes more are already in press, not to mention some twelve hundred articles a year contributed to scientific periodicals.

In the presence of such an inky deluge it does seem as if the wilderness of interrogation marks in which mankind has been wandering since the other deluge must inevitably be swept away. No doubt it will be, unless the truth itself should also be submerged.

But anyhow the spectacular quest of knowledge so prodigally endowed by Andrew Carnegie is worth the watching, for there we never anything like it in the history of the world. Until last January when the founder added \$10,000,000 to his previous endowment of \$15,000,000 the Carnegie Institution had an income of more than six hundred thousand dollars a year. Its permanent plant already includes a handsome administration building in Washington and fifty-eight other buildings, including two astronomical observatories and five laboratories, thirteen parcels of land and a fleet of ten vessels. Upwards of twelve hundred individuals have contributed in one way or another to the promotion of the researches and the publications undertaken by the Institution, while during each of the past five years about five hundred individuals have thus collaborated. With such an outfit and such an army of workers investigations have been carried on during the past year in more than thirty different fields of research, extending to more than forty different countries scattered over every continent, not to mention the oceans and interstellar space.

Two independent departments of research, together with divisions of administration and publication, each with its staff and assistants, have been organized and established within the Institution itself. In addition to these larger departments of work, numerous special researches, in aid of which upwards of seven hundred grants of money have been made, have been carried on by research associates and other individual investigators.

It is not to be understood from the foregoing that the Carnegie Institution is in a hurry to find out all there is to know; for President Woodward has suggested that in estimating the work of departments the decade instead of the year should be the unit of time. Indeed, the peculiar worth of the Institution lies in its ability to pursue with absolute thoroughness, regardless of time or expense, whatever it undertakes. Yet while working for posterity quite as much as for the present generation the Carnegie Institution is accomplishing practical results of immediate importance.

Two separate departments are studying the heavens. One of these, the Department of Meridian Astronomy, is established in observatories at Albany, N. Y., and San Luis, Argentina, on the eastern plateau of the Andes. The observers at San Luis are hard at work making accurate measurements of the position of the fixed stars visible in the southern hemisphere to be compared with corresponding measurements in the northern hemisphere, in the preparation of a complete catalogue of position of all stars from the highest down to those of the seventh magnitude, inclusive, for the entire celestial sphere. The San Luis observatory is breaking all records in stellar studies, having attained a score of fifty-six thousand observations in a year.

The solar observatory on the summit of Mount Wilson, near Pasadena, California, has a most elaborate equipment for studying the sun. This includes the Snow horizontal reflecting telescope purchased from the Yerkes observatory, a tower vertical telescope one hundred and fifty feet high, and another sixty feet high, and a reflecting telescope sixty inches in diameter mounted equatorially. These telescopes are supplied with various spectrographic, photographic and other devices for studying the sun and stars. In Dr. George Ellery Hale, Director of the observatory, the Institution has found one of the geniuses it was created to discover. By introducing entirely new processes in photography and in other details Dr. Hale has been able to reveal sixty thousand new worlds, never before seen by man, some of which are ten times as large as our sun. Most of the work, though, consists in

studying the sun, photos of which are made every clear day, and the spectra of the stars, the results being added to those accomplished by other observatories in working out various problems.

But to get back to earth again; the Geophysical Laboratory, which is located in the outskirts of Washington, has undertaken a novel line of research, for it is trying to find out how the world was made by manufacturing rocks experimentally out of the raw material by imitating the processes of Nature as closely as possible in everything except length of time required. While at the present writing there seems little hope that the information thus obtained can be utilized in the creation of a new earth in case we should all be driven off the present one by the ever-increasing cost of living, the investigation is, nevertheless, interesting.

Experiments in the creation of rocks are conducted by placing the raw materials in steel bombs capable of withstanding pressures of seventeen thousand atmospheres, which are then placed in electric furnaces where they can be subjected to the action of intense heat for weeks and even months. Temperatures as high as two thousand one hundred degrees, centigrade, or more than three hundred degrees above the melting point of platinum, have been attained in these furnaces.

It seems to be generally agreed that diamonds are produced by extreme heat at enormous pressure in the earth. The Carnegie Institution is better equipped for experimenting in the manufacture of diamonds than any one else ever has been; but instead of undertaking to find a way to place diamond necklaces within the reach of all it has elected to devote its time to such commonplace things as calcium oxide and silica, two constituents most frequently found in rock, which also happen to be the essential materials in Portland cement. The Geophysical Laboratory has demonstrated that these two things could combine only in certain ways and in certain proportions, and not in the way assumed by cement manufacturers. This being understood, the cement maker now has a scientific basis upon which to prepare his product instead of following a rule of thumb. Now that the formula has been discovered it is possible to pro-

due cement anywhere that the necessary elements are to be found instead of in certain rare spots where deposits of materials in the right proportions exist. As enormous quantities of cement are used annually, this discovery is of great importance.

The Geophysical Laboratory is also engaged in the study of ore deposits. Once the fundamental conditions under which ores are formed are understood, the range of practical geology will be widely extended and the quantity of ores available will be increased.

Some strange things are being learned about animals, birds, fish, insects, and plants by the Department of Experimental Evolution, all of which are to be applied for the practical benefit of mankind. Since Darwin's day the problem of the origin of species has taken on an entirely new form. It is now recognized that the whole problem of evolution lies in the origin, nature, and relations of characteristics. The production of a new "species" is the development of a new characteristic not necessarily new to

nature, but in a new combination. Since the Department got its hand in, it has been able to produce some curious variations on stock of well known pedigrees, such as poultry with short mandibles, with no comb with one toe missing on each foot, with an extra toe on each toe, with one wing missing, and with both wings missing. It is hard for an unscientific mind to understand why the Institution should fritter away its time on wingless chickens when any boarding-house landlady could have told it that if it really desired to fill a want long felt at economical tables it should try to produce a chicken composed exclusively of wings. Professor Tower, an associate of the Department, has been very successful in controlling new characteristics in the Colorado potato beetle, varying the colors and increasing the number of generations in the reproduction cycle. No farmer's boy who has had to break his back throughout a long, hot summer day "bagging" potatoes will thank Professor Tower for that, though. Colorado potato beetles came along quite fast enough under the old schedule.

The Crime of Being Penniless

EDWIN A. BROWN, a successful business man of Colorado, recently retired from business and began to devote his attention to a study of the unemployed. He disguised himself as a tramp and lived among them. His experiences are to be found in *The World To-Day*.

I saw clearly that you can't shake hands through prison bars and get at a man's soul. Nor can you walk through a charitable or benevolent institution in regulation style and get at its real needs. Gustave, King of Sweden, realized that fact when, on December 5, 1909, disguised as a laborer, he carried coal from a lighter to the shore in order to learn the needs of that class of his subjects.

I put on the clothes of the workingman and became, to all appearances, a penniless wage-earner in the haunts of the homeless, writes Mr. Brown. I drifted into one of the big beer dumps where they

sell drinks at five cents a glass, which costs \$1 a barrel to manufacture. I was standing over by the big, warm stove a man whose appearance told too plainly the world was not dealing with him kindly, and I said in a tentative way, "Have a drink?"

"No, I am not a drinker."

I then said, "Can you tell a fellow who broke where he can get a free bed?"

He looked at me with an amused smile, and said, "You are up against it, too, are you, Jack? Well, I am broke, too, and the only free bed I know of is the kind I am sleeping in, and that is an oven at the brick yards. A lot of us boys go out there during these slack times."

"An oven at the brick yards," I said in astonishment, "how do you get there?"

"Well, you go out Larimer street to Twenty-third, then you turn out Twenty-third and cross the Twenty-third Street viaduct. It is about two miles. You will

know the kilns when you come to them, you can't miss them. But don't go before eleven o'clock; the ovens are not cool enough to enter before that time."

"To-night I sleep in an oven at the brick yards," I said to myself with certain determination.

It was a very cold night, but at eleven o'clock I started out Larimer Street to find my free bed. Having crossed the Twenty-third Street viaduct I was lost in the darkness. There were no lights save in the far distance. I stumbled along over the frozen ground, fearing at any movement an attack, for Denver is not free from hold-ups. I could hear men's voices, but could not see them. It was not a pleasure-coasting except as the thrill of an unknown event swiftly coming to one is exciting. Finally, the lights of the brick yards shone upon me with their great, long rows of flaming kilns. I had arrived at this novel dormitory. I stepped up to a stoker at work near the entrance.

"Can you show a fellow where he can find a place to lie down out of the cold?"

He raised his head and looked at me, and said, "I'll show you a place." I caught just then a little more of Ralph Waldo Emerson's meaning when he said, "There is more kindness in the world than ever was spoken." Leaning his shovel up against the kiln, and picking up his lantern, he said, "Come with me." He passed at a kiln. "Some of the boys are sleeping in here to-night," he said, as he entered the low, narrow opening of a kiln and raised his light. We were in a round oven or kiln about forty feet in circumference. By the light of his lifted lantern I counted thirty men.

"There are about seventy sleeping in the various empty kilns to-night; I think you will find a place to lie down there," he said, as he pointed to a place between two men.

I at once laid down, and with a "Good night" he left me to the darkness and to the company of those homeless sleepers who, in all our great city, could find no other refuge from death.

The kiln was so desperately hot that I could not sleep, and habit had not insured me to that kind of a bed. Had I been half-starved, weak and exhausted as were most of my companions, I, too, could have slept, and perhaps would have wanted to

sleep on forever. No one spoke to me. I endured that night by going at intervals to the kiln's opening for fresh air. It was then when I looked up into the deep, dark, frozen sky, I thought what a vast difference there was from being a destitute man from choice and a destitute man from necessity. At four o'clock, the time for a fresh firing of the kilns, we were driven from the great heat of that place out into the bitter cold of the winter morning. Very few of the men had any kind of extra coat, but, thinly clad as they were, they must walk the streets until six o'clock waiting for the saloons or some other public places to be opened. Their suffering was pitiful. I afterwards learned that many of these men contracted pneumonia that winter from this exposure, and from this and many other exposures, filled to overflowing the hospitals of the city.

During that entire week I followed up my investigations. I found men sleeping in almost unthinkable places: in the sand houses and the roundhouses of the railroad companies, when they had touched the heart of the watchman and were not driven out.

I asked one of the railway men why the railway companies drove them away from this bit of comfort and shelter.

"Because they steal," was his reply.

"What do they steal?" I asked.

"Oh, the supper pail of the man who comes to work all night; an old sack worth a nickel, a piece of brass or iron or part of the equipment from a Pullman car, or anything they can sell for enough to buy a meal or a bed or a drink."

"Do they steal those little things because they are hungry?" I questioned.

"Oh, I don't know," he said, with a shrug. "They are often so successful in not being detected while taking these little things, I expect that has made them bold. Some may have been hungry," he said, after a thoughtful pause. "Work has been scarce and hard to find, you know."

"Yes," I replied, "they have, no doubt, tramped the streets for many a day, foot-sore, dirty, ragged and penniless, and worst of all, discouraged and desperate. They must have clothing and food as well as a place to sleep. Without this they must suffer and die. They are haunted by this fear of death, knowing well what

hunger and exposure means and the utter impossibility of securing work with their indecent appearance."

"Yes, I know," said the man, patiently listening to my growing realization of their desperation. "When they become bolder and break into a freight car to steal something, if not of much real value, or something to wear, they are usually caught and thrown into prison. But they can't stop to think of that, I suppose; the poor devils have got to live," he said, with sympathy.

"You mustn't give me away," he added, confidentially, "but I know a special agent for a large railroad company, who made a head of the number of men he had sent to the reformatory and put in the penitentiary the past year."

I slept, or rather spent the night, with thirteen men who were sleeping in a box car on a bed of straw. Some were smoking. Is it any wonder that many thousands of dollars worth of property are destroyed by fire in one night? I found men asleep in vacant houses with old rags and papers for beds. They also smoked and not only endangered this house, but the entire city; besides, they often robbed the house of anything available, to satisfy their hunger. I found them sleeping in the loft of barns, the only covering, the hay under which they crawled. I found them under platforms of warehouses with pieces of dirty old gunny sacks, or a piece of old canvas for a covering. I found them curled down in the lower of the switchman, in empty cellars, in vat rooms in breweries, in hallways, driven from one to the other, and some "carrying the banner" (walking the streets all night). I found them in the rearways of saloons, on and beneath their tables, and last, but not least, in that damnable, iniquitous cell, the bull-pen in the city jail.

A few short years ago—the date or his name is of no moment—a young man eighteen years of age was shot to death by a policeman in Denver. I went to the morgue and looked on the white, silent face of the murdered boy. His mother wined "Can't come to bury him; too poor." And so he was laid in a pauper's grave; no, not a pauper's grave, but a criminal's grave of the lowest type—a desperado that would make one cringe.

I have noticed in all of the police systems of our various municipalities, in my investigations — I exempt none — that where they have murdered some one or thrown a sick man into jail and he takes his life in there, or some other outrage is committed by their wicked policies, which, for the moment, shocks the city, they always try to blanket their wrong deeds by making a public statement that the victim had a record and was well known to the police. A one-sided story. "The man is dead." According to the press report, this young man's diary showed that he had been in the state seventy-four days and out of the seventy-four days he had worked sixty-four. But the most convincing proof of his outlawry was that they found on him a match-safe, that a man declared had been stolen from him. As I looked on that dead boy's face I seemed to read, above all else, kindness. Had he been kind to some one and, in return, had this match-safe been given to him? Hundreds of times have I seen these tokens of appreciation given: match-safes, knives, and even clothes from one out-of-work man to another—even an old brass watch that the penniless man considered of no value. The match-safe may have been given to this young fellow by a hardened criminal with whom circumstances had forced him to associate. "He ran from the officer." If he had ever been forced as a lodger or a suspect to spend a night in a western city jail, he would take the chances of getting away by running rather than face that ordeal again. I was so deeply impressed by the injustice of this municipal murder that, under a *seus de plume* I wrote a letter of defence for the boy to his mother, a copy of which I sent to the press. It reached the governing powers of the city; but not the public. Almost immediately the officer was arrested, tried and acquitted by the administering control of justice. A person cannot be tried twice for the same crime.

After my investigations in Denver had revealed such a startling condition of those who suffer, my first impulse was to fly to the Church. I thought I had reason to believe the church stood for compassion, mercy and pity. First, I approached several of our leading clergymen. My first appeal was to the pastor of the Chris-

tian Church, and his reply was, as he hurried on:

"Mr. Brown, if you succeed in getting a free municipal emergency home for Denver, you will build a monument for yourself."

To this I answered, "I have no desire to build a monument; I want our city to build a shelter for those who may be temporarily destitute among us."

Another, a Baptist, asked if it were Christian. I turned from this reverend gentleman with the belief that in his study of the Scriptures he had omitted the thirteenth chapter of First Corinthians, in which, I believe, the substitution of the word love for charity is conceded correct by the highest authority.

To another, a Methodist, I said, "Won't you speak a word to your people that an interest may be aroused to relieve the hardships of those who tell, who happen to be without money and have no place to rest?" With a forced expression, he said, "I don't believe in the homeless and out-of-work. I have found them without merit and dishonest." I could only ask what our Savior meant by "the least of these," and reminded him the last words Christ spoke before His crucifixion were to a thief.

I then made my way to the home, on — Street, of the Presbyterian pastor of the largest and most influential church in the city. I did not succeed in seeing the leader of this ecclesiastical society. But as I passed, I could look into the basement of the brightly lighted church, and I saw approximately fifty Japanese being taught by white women, aliens who did not want our religion, but our language and general ideas.

Going to the president of the Ministerial Alliance, I asked to be heard, but they had no time to listen. I then went to the Y.M.C.A., and the president said, "Brown, you can't expect every fellow to throw up his hat for your concern." Paradoxical as it may seem, the only three societies whom I sought for aid, which turned me down, were the Ministerial Alliance, The Barstenders' Union and the Y.M.C.A. Later, the women's clubs, labor councils and the medical societies were my warmest friends.

I then went to those of authority in the administration of our city, and among the

many objections raised to my plea, the first was "there are other things need our attention more. For instance, there are our overcrowded hospitals which must be enlarged." The sick, I was told, were lying on the floors, and several children were being placed in one bed, just as they are doing in Chicago to-day. One of the most important lessons in therapeutics is prevention. Let us enlarge our hospitals by properly housing our needy. Let us keep them from getting sick by keeping them from being exposed. Then it was declared we would pauperize the people, we would encourage idleness instead of thrift.

Mr. Hugh O'Neill, in an editorial, most wisely met the question of pauperizing the people by saying, "The surviving superstitions of a period that held every altruistic and humanitarian activity to be things that pauperize the people—we have traveled beyond that idea with our municipal theatre giving free concerts, and our municipal parks and municipal baths giving free means of health, and our bands of music and electric fountains. We have traveled beyond it with our municipal refuges for our disabled, infirm and sick, our municipal health departments and public libraries. The pauperization produced by all of these activities has not made itself apparent in any way we know of. But we hesitate at the suggestion of a municipal emergency home."

My investigation had taught me how useless it to talk ethics to a man with an empty stomach. The municipal emergency home, I believed, would encourage thrift instead of idleness.

And then our chief executive declared that something effectual should be done to keep out of our state the army of consumers who come to Colorado. I could hardly see how that would be quite just or right. But I could see, I thought, how the municipal emergency home, rightly built and conducted, with its sanitary measures would be a mighty influence in our combat against the great white plague. Then the all-powerful declared the city could not afford it. The old cry of every city administration where the political boss and machine politics rule, when it comes to creating an institution that is not in tune with their policies.

Being abruptly asked what I knew about municipal emergency homes, I was forced to confess I had no knowledge whatever. I realized the need of information. I did not even know there was an existence on this whole earth of ours, such an institution as I was asking Denver to build.

That night found me with a suitcase in which was tucked my blue jeans, on my way to Chicago and the East.

I have been greatly misunderstood in regard to the class and character of the destitute for whom I am seeking favor. That I can now clearly explain, for what I found true in Denver in a small way I found true in every other city. I classify them in two parts, namely, the unfortunate, and the itinerant worker. Ninety per cent. taken as a whole throughout our country are of the latter class. The former and smaller per cent. are chained by habits of vice which our social system has

forced upon them, or are physically weak. And while, first, my plea is for the up-right wage-earner, I am broad enough to feel that if we have been thoughtless enough to allow social evils to exist to make them derelicts and idlers, we certainly ought to be honorable enough to stand the consequences and give them at least a place of rest.

But the 4,000,000 homeless, honest toilers with us to-day affect the welfare of our home and our nation. They are an important force and factor in society. By a moment's thought we can quickly see hundreds of good reasons why many of them at times can be moneyless and shelterless. As I throw back the curtain on these stories of human interest, I trust we may all of us catch forcibly the effectual need of not sitting idly asking a good God to help us, but rather, by putting our petition in word and act, be a living prayer in helping Him.

A Bet About Your Unworking Hours

AN excellent comment on Arnold Bennett's little book, "How to Live on Twenty-four a Day," is to be found in *The World's Work*. Bennett lays a wager in his book that you waste much of your time and he proceeds to win his bet.

For instance, suppose that you get up and take light exercise and a bath, and dress as a gentleman should without indecent hurry, and eat breakfast, and read your paper, and get to your office at half-past eight or nine o'clock. That is surely a leisurely schedule for any working member of society. Suppose you get through your day's work, whatever it is, with an interval for luncheon, and end it at five o'clock. Between five o'clock in the afternoon and seven the next morning are fourteen hours of the twenty-four—a majority. Mr. Bennett bets you that you can't even give an intelligent account of what you do with these fourteen hours. Yet your management of them determines not only your real happiness, but determines also the efficiency with which you spend your working hours. The master trick of the game, in fact, is rightly to

spend the hours that lie outside the working period of the day. Since one man has just as much time as another, and since the problem of wise living is the use that one makes of the hours that are not necessarily spent in work or in sleep—here lies his suggestion for you. The ordinary man wastes this time. That is the long and short of it. A man who accomplishes important things either in building up his own character or in making himself useful to his friends and to the world that he moves in, is the man who has learned the art of utilizing these unworking, unworking hours.

Most of us would lose the wager; for the truth is our time is spent in piddling, in doing little things that are made necessary, if they are necessary at all, by our lack of orderly living. Suppose you wish to read. The book you want isn't in its right place, and by the time you've found it you are out of the notion to read it. Or you will play golf. But you forgot to have your club mended, as you meant to. A housewife will spend a larger part of her time than she realizes in putting this and that in place because

she hasn't thoroughly trained her maid, and because the members of her household are careless of their time and thoughtless of her. The lost motion and the lost time in doing little things are great enough to keep many a man and many a woman from carrying out the pet project of their lives. They are waiting forever for a chance that will never come to take up these pet projects. One sometimes has a sympathy for the Frenchman who killed himself because so much time must be wasted in dressing and undressing—in merely getting ready to do things.

Then again, an hour is worth more to one man than half a dozen hours to another, because the first man knows how to use it promptly and effectively. He doesn't fiddle and get ready. He is ready; and he goes at what he wishes to do without distraction. And he does it with a vim. That's what the school-men mean when they say "concentration." This is an art that comes, as every other art comes, with practice; and every man can acquire it more or less well—can acquire it by degrees.

Suppose a man had 1,000 letters that he must read and classify (there is such a man), and he had only his spare moments to do it in. He will, if he be wise, first make a proper physical arrangement of the task. The unread letters he will put in the most convenient place—a permanent place, not on a desk that must be used for something else. Then in even a half hour, with nothing to arrange and with no preparations to make, he can read perhaps a dozen and classify them; and he can do this any half hour or any quarter hour, or any ten minutes that he could find, and the readiness of the task will tempt him to it—he will enable him to find time. Piddling and preparation—the bother of getting things ready to do something—consume much of our lives; and mere physical orderliness, reduced to an exact science, is the rarest of the minor virtues. It rises, in fact, to the dignity of a major virtue.

The principle of "the new science of business efficiency" can be applied to a

home—to all the little things of living—quite as well as to the conduct of an industrial establishment. A good argument could be made to show that it is more needed in the home than in the shop. The hours that are for recreation, for conversation, for living as distinguished from working—these need the benefit of "scientific" management, if conversation and recreation and the real pleasure of living are to be enjoyed. Such management would not mean a rigid system. It would mean chiefly the elimination of a thousand and one little duties and deeds that are made necessary by a lack of orderliness. It would mean the absence of having to get ready to do things. It would mean that, when a man wished to read half an hour, the book would be at hand; when he wished to work his garden, the tools would be there; when he wished to lie down, the couch would be ready; when he wished to—whatever he wished to do, he could do it without loss of time or change of mood.

It is to be feared that women are great losers of time because, from an economic point of view, they have regarded their time as of less value than men's—an erroneous judgment, by the way, because one person's time is of as much value to that person as any other person's time is to that person; everybody's time is of prime value to himself, just as everybody's health or life is. The trouble about women's work is that it is of so many kinds. There is domestic work from kitchen to garret; there is social work, according to every one's taste and opportunity; there is, besides, the miscellaneous, left-over, general management of all small things (as well as of some large ones). All this is difficult to reduce to system. But it is not only possible but necessary if the household is to get the use of its time for the best pleasures and the best growth and the greatest happiness.

If you take Mr. Bennett's bet, that you cannot intelligently account for your hours spent away from your work, you'll have occasion to think of several important things before you win it.

Light as a Preservative of Health

THAT eminent British physician, Sir James Crichton Browne, contributes to the *Windsor Magazine* and *The Youth's Companion* an article on the effect of light on one's health, and after pointing out the part played by light on the plants and flowers, he proceeds to detail its influence on human beings.

On the large scale, he says, it cannot be gainsaid that sunlight is an important member of that confederacy of outward influences that makes for physiological righteousness.

We have an indication of its activity in this direction in the bronzing of the skin it induces. Pigmentation of the skin, to which bronzing is due, may be caused by low temperature as well as by sunlight, but when of sunlight origin, it is a sign of vital energy, and, indeed, the capability of cutaneous pigment formation is to some extent a measure of constitutional strength.

The absence of pigment is often associated with weakness. Albinos are invariably feeble creatures, and in the case of the cat are often deaf, and in that of the horse short-sighted; and stock-breeders have a strong prejudice against pure white animals, alleging that they are delicate and difficult to rear.

Then the production of pigment in human beings of the white race requires a certain substratum of stamina, for healthy people bronze easily, and sick people only with difficulty and slightly. Chlorotic and tubercular subjects, indeed, may be freely exposed to the brightest sunshine and retain their pale complexions, and in consumptives, under the open-air treatment, the appearance of bronzing is sometimes the first signal of returning health.

But sunlight penetrates much deeper than the skin. It quickens the circulation, it increases the oxidation in the body, it enriches the blood, it promotes nutrition in every organ and tissue.

But how, it may be asked, does light do all this, seeing that in man and in the higher animals its access to the body is so limited? We could understand its widespread sway, it may be said, if the whole surface of the diaphanous skin were habitually exposed to it, so that the corpuscles of the circulating blood, like the

corpuscles of chlorophyll in plants, might drink its kinetic energy, and the cutaneous nerve endings be stimulated by it.

But, as a matter of fact, man and the higher animals practically live in darkness. They spend at least a third of their time under the shades of night, they hide themselves in the murkiness of dens and houses, and they are covered with fur, wool, hair, or clothing, so that light cannot reach the skin at all, or only in feeble dilution. In man—even in those of us who are bald and do not wear gloves—only about one-eighth part of the surface of the body is directly exposed to the influences of light.

The answer to that is that, in the higher animals, the whole history of evolution consists in the gathering up into special channels of functions that were at one time generally diffused. Touch and the sense of pain and temperature are still maintained over the whole periphery, although even they concentrate themselves in specialized cutaneous regions; but taste and smell have been focused on certain tracts of mucous membrane, and hearing has had constructed for it a mechanism of the most exquisite contrivance.

The vibration of sound—caused, say, by the voice of a speaker—still throws the whole body into a state of tremor; but they are perceived, not through the ear and auditory nerve. And so the undulations—or shall I say the corpuscles—of light, which in plants and lower creatures exercise whatever effects they may possess upon the organism through its whole superficies, in the higher animals and men, operate upon it through the retina of the eye and its brain field.

And not only have these generally diffused superficial impressions, which were the rudiments of vision, been lifted into the eye and raised to an immeasurably higher power, but with them have gone up in great measure the nutritive prerogatives of light. These are exercised no longer directly upon million multitudes of cells, but reflexly through an autocratic and unifying brain-centre. The light impinging upon the retina, stimulating the nerve endings of the optic nerve, and initiating impulses which are conveyed to the brain, not only sets up sensations and visu-

al judgments, but has a secondary trophic or nutritive effect.

Its influence is not confined to the visual area in the occipital lobes and angular gyrus of the brain, nor to other sensory and motor areas welded to them, but extends to some nutritive centre that regulates the building up and breaking down of protoplasm and the contraction and dilatation of blood-vessels in remote regions and parts.

You must not imagine that the light gets no further than your eye and brain. It goes all over you, in spite of your clothes, and insinuates itself into every nook and cranny of your body. It is not easy to give you demonstrative proof of this in your own person, but that may be afforded in the case of some animals.

And, in this connection, the amphibia supply us with instructive material, for in them we can trace out the direct and reflex action of light co-existing side by side very obviously. They have naked and sensitive skins, and they have complex and sensitive eyes, and they have, moreover, movable pigments in their skins which respond to light, giving rise to changes in color.

These pigments, black, red, yellow, or green, are contained in cells called chromatophores, placed immediately beneath the transparent epidermis which can contract, withdrawing the pigment from the surface and making it look pale, or dilate, spreading the pigment near the surface and giving it a darker or more saturated tint.

By the movements of these chromatophores, in conjunction with a fixed white pigment, and with interference of light by structure, producing blue and violet colors, these creatures, and especially the chameleons and tree frogs, appear in many varied and beautiful liveries, which are changed in accordance with environment and disposition.

The paramount object of these varied liveries is concealment; so the animal assumes a pattern skin to its surroundings. What has been called natural photostereoscopy goes on. The frog that sits on the grass grows green, the frog located on granite soil becomes speckled, the frog haunting the dark moorlands dons a brown costume.

These changes, which are slowly established, are attributable to the influence of light and color playing directly upon the skin; but other rapid changes, as Lord Lister long ago proved, are produced not by the direct action of light on the skin, but indirectly by its action on the optic nerve and retina.

A dark-colored frog, that invariably becomes pale when exposed to light with its eyes uncovered, retains its dark color when so exposed after a little hood of dark cloth had been placed over its eyes, without interfering with respiration, and instantly becomes pale when the hood is removed, its quick change being unmistakably due to retinal and not to cutaneous stimulus.

Desirous of ascertaining through what efferent channels the nervous impulse that caused concentration of the pigment on exposure to light was conveyed from the brain to the foot, Lord Lister divided the sciatic nerve—the great nerve of the hind limb, but without effect on the color of the limb. He tried then division of all the structures in the thigh, except the bone, femoral artery, and sciatic nerve, but again without effect.

When, however, he added to the latter procedure a section of the sciatic nerve, the animal, being then pale, gradually grew dark below the seat of operation, till in no long time the leg presented the appearance of having had a black stocking drawn over it, while the body and other limbs continued pale. All these parts were equally exposed to sunlight, but the darkened leg was cut off from reflex influence from the retina, which was still operative upon the body and other limbs, and so its chromatophores dilated and put forth branches.

It thus became clear that the regulation of this function of pigment distribution in the frog, which is probably closely allied to the action of the cells in nutrition, is not carried on by special nerves, as in the case of the contraction of ordinary muscles, but that all the nerves going to the limb have trophic functions. The changes that take place in the chromatophorous cells of the skin of the amphibia under the influence of light—namely, contraction with drawings in of their fine ramifications and concentration of pigment—remind us of the changes that,

according to some recent observers, take place in the neurons or cells of the brain in the transition from the sleeping to the waking state, when their branching processes and terminal buds are said to be retracted; and, of course, of all external stimuli, light is the one that is most potent and universal in determining that transition.

It seems curious that nervous action should make the pigment molecules move rapidly to the centre of the cell from its extreme ramifications, and yet this is not, as Lord Lister points out, more wonderful than a sudden gush of tears or outburst of perspiration under nervous influence, and both of these phenomena may be induced by excessive stimulation of the retina by light. Platen has shown that rabbits give off much more carbon dioxide when exposed to sunlight than when kept in the dark; but when the animal is blindfolded, the excretion of carbon dioxide under these two conditions is equalized.

I have said that in human beings the direct influence of light on the skin is not altogether abrogated. The races that still go about "in native worth and honour," no doubt benefit by that influence, but civilised races that have addicted themselves to raiment have been content to forego it. But in them, too, under certain circumstances, the exposure of the whole surface to light seems to have a tonic effect.

At Velden, in Carinthia, in Austria, a special sunlight cure is carried on. The whole body, uncovered, is exposed to the influence of the sun and air for several hours a day, and the patients walk about in the park as lightly clad as in a Turkish bath.

It would be difficult to say how much of the beneficial effects of the treatment at Velden is due to sunlight, how much to pure air, regular habits, and a quiet and secluded life. But beneficial results are obtained in cases of blood poverty and nervous prostration, and the doctors and patients alike believe that, in securing these, the sunlight is at least an important adjunct.

Sir Lauder Brunton saw at the Roosevelt Hospital, at New York, a room, three sides of which were glass, so that it was flooded with light; and he was informed that this was used as a sun-bath, and that

convalescents recovering from illness and operations who were turned into it naked, and allowed to bask in the sun's rays, seemed to regain flesh and strength more rapidly than others not so treated.

In certain states of exhaustion and reduced nutrition, there arises a craving for sunlight, and in the grounds of say, say, in summertime, you may see chronic lunatics complacently basking in what would be a distressing and broiling glare to ordinarily constituted persons. That it is not altogether the heat rays that attract them is indicated by the fact that these same lunatics do not hang round the fireplaces within the building.

But the surviving direct influence of light on the skin generally in man is comparatively unimportant, I believe, in comparison with its reflex influence through the eye; and that reflex influence has not yet, it seems to me, received the attention it deserves. We are apt to think that the eye is for seeing only, and to ignore its subordinate functions, but one of these subordinate functions is, I suggest, its transmitting light into a trophic stimulus to the system generally.

Light, operating through the eye, brain and spinal cord, is, I maintain, a universal tonic, promoting health and nutrition, and so increasing resistance to disease.

The blind are almost invariably feeble, anemic, and prone to illness. No doubt other concomitants of their affliction are partly responsible for their debility, but the deprivation of trophic influence which their sightlessness involves is, I believe, its chief cause.

In the open-air treatment of tuberculosis, which is now yielding such excellent results, light is a powerful accessory; and it is so, I believe, not by any lethal action on the bacilli—which, lodged in the body, it cannot reach, and which, when expectorated, are more expeditiously and efficiently destroyed by other germicides—but by its trophic influence on the lungs through the vagi nerves, thereby increasing pulmonary resistance to bacillary invasion.

Division of the vagi in an animal is, we know, rapidly followed by pneumonia and gangrene of the lungs, owing to section of the trophic fibres, and it seems indubitable that any diminution of trophic influence through these nerves will lower

the vital resistance of the pulmonary tissues, and that a full and free flow of trophic influence will brace them in their struggle with disease.

That full, free flow of trophic influence through the vagi to the lungs is, I am satisfied, greatly reinforced by the copious admission of light to the eye, and the fact that improvement under the open-air treatment is often more marked in winter than in summer does not militate against this conclusion.

Hunting a Job in the Wicked City

IT takes a writer like Eugene Wood to give the proper touch to the experience of the country lad who sets out from Johnnyake Corners to seek his fortune in the great city. This he does in the *American Magazine*.

You pack your trunk and start for The Wicked City to make your fortune or your living. Your mother doesn't go to the depot with you, but she bids you good-by at home, and puts her arms around you, and kisses you, and tries to smile through her tears. And, for the first block or so, you don't say much. It's as much as ever you can make out to utter: "I can carry that, pa." Your mouth feels sticky, and your throat hurts. And your father buys your ticket all the way to The Wicked City, and asks Mr. Morton, the ticket agent, when it'll get you in, and if No. 4's on time. And when the train does come, and the tumult and the shouting of "Bus to the American House!" and "Eagle Hotel right this way!" and "Oh, there she is! Oo-hoo! Wave your hand at her! Here we are!" and the kissing begins, your father tells Johnny Mara, the passenger conductor, that you're going with him, and for him to kind o' keep a look-out for you, and any favors shown you would be appreciated, and so on. (It makes you feel green for him to say that. You're a man. You can take care of yourself.) And Johnny Mara nods his head, and never gives you another thought, and just as he is about to holler "All aboard!" the telegraph operator runs out with an order for him from the train

From all that has been said, it surely follows that light is instrumental in preserving health and in maintaining it at a high standard, by its immediate effects on the individual man, physical and trophic, as well as by its action in safeguarding him from microbial attacks. And it surely follows, from what has been said, that light is a sanitary agent of the first order, and that it behooves all good sanitarians to spread the light, to conserve the light, and to protect it from pollution.

despatcher, and that gives you a little more time to wait. So you hoist the window and talk through that to your daddy about nothing in particular. Neither of you knows what to say. But your daddy sees the conductor coming back from the telegraph office, and he finds the courage or the desperation to blurt out: "Well, good-by, my son. Good luck to you. Don't get discouraged. Keep a stiff upper lip. Let us hear from you every week. We'll be so anxious to know how you make out." He gives your hand a sharp pinch, and says in a queer, choked-up voice, "Be a good boy, and his mouth kind of trembles, and his eyes begin to blink. "A good boy. God bless you!" and he has to cough as if something got in his throat. And the train moves out, and you wave your hand at him for a little while and then sit down. But he stands and watches the train till after it gets out of sight behind the soap factory. Yes, he stands and watches the sky till the last faint tinge of smoke from the locomotive that drags you from home has faded. And if you could see him walk away, you'd see he was a good deal older than he was half an hour ago. It'll be lonesome at the supper table to-night, lots lonesome than it was when you were going to college. . . . Kind of a nice old party, your daddy, in some ways. Course, he isn't the same to you that your mother is, but he means well. He was pretty near boo-hooing right out; he was for a fact. Just because you were going to The Wicked City to "accept a situation"—if you could find one to accept.

The Wicked City was joyously approached on your first visit; you hunched the train along on your eagerness to be there. But that was a visit. This time it's do or die. This time it's a ground-hog case with you. There is a cold sinking inside of you below the waistband. You swallow a good deal. On your first visit—don't you remember?—you walked through a parklet with this green grass in it, and lots of flowers, and a fountain squirting, and big, fine buildings all around it, bigger than the courthouse, yes, ten times bigger than the courthouse and the jail put together. Splendid buildings. Knock your eye out. Cost a terrible lot of money. They just clattered it on so's to show it cost a lot of money.

But the buildings were not big enough to overshadow the pitiful, bloodless men that listlessly sat upon the benches. They were not splendid enough to quench the squalor of those whose blood and tears had stuck the riled-up stones together. The money splashed on them could not talk loud enough to out-shout the accusing poverty of the wretches who sat there, so many does without a master, a master to kick, perhaps, but also a master to give one a bone to gnaw sometimes. The Wicked City has money to throw to the birds; it has men to throw to the birds, too, such buzzards as choose to pick at them. Nobody cares, not even the wretches themselves. All that worries them now is where they can get the price of a drink, and the "free lunch" that goes with the drink. But in such, some mother kissed her boy, and put her arms around him, and wished him the best of luck, and tried to smile through her tears: some father gave his hand a sharp pinch and blurted out, "God bless you, my son," with lips that trembled. These all had mothers who had been proud of them, and fathers who wanted to be proud of them. They were all going to be Somebody. And now look at them! They had even not lost courage. Not all of them, though. One went to follow—don't you remember that fellow? Just about your age he must have been, such a nice face he had, but so thin and peaked-looking, that was staring ahead of him, and all of a sudden he put his hands up to his face and muttered: "O God!" I suppose he tried

everywhere and couldn't get a job, and his money was all gone, and . . .

Oh, well. No use "supposing that was you." It couldn't be you. You'd catch on somehow. It might go kind of hard at first but you'd get there. You'd work at anything—"Yeh-heh-heh-heh!" you laughed bitterly to yourself, "it'll have to be anything!" When you struck him for the job the man would ask you, "What can you do?" and you'd answer him, "Anything." (It wouldn't do to say: "Why, nothing acceptably.") Anything, it wouldn't make any difference what, so long as the tail end of the week had a pay envelope tied to it. Well, perhaps not "anything" either. The line had to be drawn somewhere. You had not then attained to high finance as it is exemplified in the vaudeville conversation: "What would you do for a million dollars?" "I'm ashamed to tell you."

Well, you don't know what you can do till you try. You were willing to try 'most anything from being a bank president on down. Anything. Nothing in particular that you know of. Why didn't you find out, before this, what you were best adapted for, what sort of work there was for you in life that would be no work at all, it would be such a delight to do it? They didn't find that out for you at college; what they did there was to cause you to make for the sixth time in history a limber-legged translation of second-rate verses advertising wine, written by Quintus Horatius Flaccus, who didn't amount to a hill of beans two thousand years ago, and less every year since; what they did was to take you up into an exceeding high mountain of mathematics, when you couldn't fit a column of figures securely or take 35 out of a dollar without pencil and paper; they instructed you in Martielle's Law, who could not tie a knot except a hard knot and a bow knot; they gave you 85 for a term-standing in Christian Evidences who couldn't tell quarters from eighths on a foot rule. What were you good for? Who knew? Not you.

There was a fellow once . . . Say, it was you, wasn't it? Didn't you tell me one time that when you landed in The Wicked City, and had two dollars left after you paid a week's board in advance, and for hauling your trunk up from the depot, you gave a phrenologist a dollar

and a half of it to feel of your bumps, and tell you what you were qualified for? Not you? Well, who was it then? Some friend of mine. Told me that for a positive fact. Said it was a stand-off which needed the dollar and half the worst, he or the professor. Well, it came out all right, anyhow. The very day the landlady was going to throw him out if he didn't pay up, he fell over a job packing coffins in a coffin factory, and helping out with the books after the old man had showed him which was debit side and which was credit side. He was a crackerjack at "AR with the optative mood but he didn't know B from bull's foot about debit and credit, and he never did get it clear in his mind why, when you take in money, it should be put on the debit side of the cash book. Aw, that was you. Don't try to lie out of it. Well, if it wasn't you, who was it?

The phrenologist never opened his trap about the fellow's qualifications for packing coffins, but it was something that tied the pay envelope to the tail end of the week. It isn't what you're qualified to do; it's what you can get to do.

Fifty cents left, a week's board paid, alone in The Wicked City, and no job. There's a dramatic situation for you. Not a comedy situation, though; not at all. Six of these fifty cents went for evening papers, one of them foolishly squandered on the late edition which didn't have any more "HEAR WAYSIDE—Male" than the earlier edition. There were some fine editorials in that paper if you only knew it, beautifully written articles about the Tariff Question, and the Gold Reserve, and one commending the governor of the State for his spit with the bees who had put him in the job, but you never even looked at them. You missed it. And there was a dandy in the second column. I forget the title, but it was all about the Right of the Citizen to Work for Less than he can Live on.

It's lonesome in The Wicked City evenings when you don't know a soul, and are a little homesick, and the meals (at the boarding-house where the tablecloth has gravy spots and rings on it printed from the bottoms of coffee cups) don't sit very well, and you have only forty-four cents and no job. The different-colored lights, green, and red, and blue, and white, wink out and in again, and revolve

and wiggle, and spell out words, letter by letter; the crowds surge on from under the old-fashioned are lights, tinged with violet, into under the new-fashioned are lights with a sunset glow. They're happy. Anybody with a job is happy. They're going to the opera where one chair for one evening costs more than you'd be glad to get for six, long dull, dreamy, driven days. They're going to the theatre to indulge in the luxury of tears at faked sorrows when life is lousy with real sorrows. They're going to the vaudeville to laugh till their stomachs hurt them. They're going to the moving-picture shows to see the crowd chase the fellow and fall into the water with a mighty splash. And you—you stand there lonesome, out of it, out of it completely. Forty-four cents in your pocket and no job. A girl comes up and says "Hi!" but you never turn your head, never let on you hear her.

It's lonesome. It's bright, and gay, and noisy, and there are lots of people out, people who don't care whether you live or die—who'd a little rather you died, for your hunting a job makes it just that much harder for them to keep theirs. And presently they are gone, and won't reappear until after the first act. It gets lonesome than ever. The mechanical plane outside the moving-picture show keeps banging away. Forty-four cents . . . Oh, well, what's the odds? You've got to do something to pass the time. . . . And now it's only thirty-nine cents. Thirty-nine cents and three days more at the boarding-house, and then. . . . You walk through the parklet where the fellows are that can't get a job, that have given up trying, that don't care any more. They sit there and drowse, swinging a foot to make the copper think they're awake. It's wicked to sleep out of doors, and beat the poor landlord out of his constitutional rights to charge you more for a bed than it costs him. They can put you in jail for that, the same as if you stole. They've got newspapers wrapped around them, the bums have, and are sitting on newspapers.

It's cold out of doors at night with nothing over you but—What is it our old friend Q. Horatius Flaccus says? "*Sub frigida Jove!*" A chilly proposition.

When it comes really bitter weather—But paw! They don't mind that;

they're used to it. Sometimes they have to walk the streets five nights hand-running to keep from freezing to death, fellows that have got to be fifty years old, working at their trades, and then are let go because they aren't as spry as they used to be. You see, they've never learned how to take care of themselves like a real hobo does, and it goes pretty hard with them. But they get used to it. They get so they don't mind it—much.

But it would be kind of tough if you or I had to do that way. You sort of had mothers who tucked us in, and asked us: "Now, are you sure you've got enough cover?" We couldn't stand it to lose five nights' sleep hand-running. Why, it breaks us all up to lose one night's sleep. And five! Sooner than that. . . . All you've got to do, you know, is to walk down to the street-end where the pier is, and say, "Here goes nothing!" and that ends it, unless you know how to swim, and then it must prolong the agony some. But you could buy something at the drug store with that thirty-nine cents, you know a mother bore with agony that was soon forgotten for joy that a man-child was come into the world, you whose hand a father held in parting, and pinched sharply as he said, "God bless you, my son," with lips that trembled.

But say! The Wicked City at night when the show lets out is splendid, isn't it? The ladies coming out of the opera-house, with their jewels snapping fire at you, and their delicate-tinted wigs, and the man bawling out "TWO

FORTY THIRTY-SEVEN for their carriages to take them home or to the swell restaurants of whose glories you catch a glimpse through the doors held open to let them enter. The money paid for one portion of food, to say nothing of the wines, would keep you alive for a week. . . . But we will not go into that.

Let's talk of something more to the point. Did you ever try selling books on subscription? You remember that fellow Croy that was in our class up to the spring term of the Sophomore year? He was studying to be a minister. Earnest fellow he was. Fine voice, tall, strong as an ox, eyes that looked right through you. Got a lot of fellows to go up to the mourners' bench that winter. He was the crack man

of the Philomathean Literary Society. The summer after his freshman year he went out and sold "The Royal Path of Life," and did pretty well. Made enough to keep him till the end of the winter term, and he thought he'd go out during the Easter vacation and sell a few books and then come back and take up trigonometry, and botany, and Gorgias, and the wine advertisements of Quintus Horatius Flaccus and the other things you have to learn before you can point the way to another and a better world. He went out, I say, to sell a few books, and—*but*—never came back. It was so much an easier living than preaching for four hundred a year at Canal Winchester, Sunday mornings, and Sinking Springs and Mount Pleasant alternates Sunday evenings, that he never came back.

You know, if I had a boy and wanted him to be a real success in life, an out-and-out financial success, I'd never send him to college; I'd put him at being a book agent. Some crack up traveling with an Indian Sagwa Remedy Company, and others claim that nowhere else can you learn the essentials of business success so well as in the ticket-wagon of a circus where you get callouses in between your fingers from pinching dollar bills out of the Reubens' change. But I stick up for the book-agent's profession. There's nothing like it to develop gall; nothing. Absolutely. If you've got gall, you don't need anything else to make a success in life. "Merit!" Oh, your grandmother! What's merit without gall? No good. And you can't have both.

You make some money in a half-hearted way selling books. You happen to strike some poor defenseless cusses on their blind side. But you hate it. You begin late and quit early. Some days you cannot force yourself to do it. There's no one to hear you recite and mark you \$5 per cent.; no one to go along with you and show you how; no one to stand over you and make you do it. There's where we touch the nerve pulp. Right there.

And so, when you fall over the job of packing coffins in the coffin factory and helping with the books after the old fellow with the white ear muffs shows you which is debit side and which is credit side, even though it is only five-fifty per— the old man thinks he was mighty

"a rood" to get a packer and a bookkeeper combined for only five-fifty per, when he expected to have to pay six dollars anyhow—even though the hours are long and the work has not a spark of interest, and not a ghost of a show for you to get ahead, when you fall over it, you clutch it with a death grip. You're all right now; you've got a job. And you write home to the folks that you have "accepted a situation." Your mother is so glad that she could jump for joy. A woman likes to see the money come in regularly, even if it is a much smaller sum. But your father sighs. He didn't want to see you stuck at book-selling, but he was in hopes that some of the blood of savage chiefs of long ago might crop out in you, the blood of those old, brave fellows who were never in bondage to any man, who would have died rather than dirty their hands and souls with labor. There are descendants of these extant now, men who cannot stand it to be bossed, who count it a shame rather than something to brag of, that you have been in the employ of one firm twenty-eight years, come the sixteenth of next July, without a raise of wages and with the certainty that some day they'll give you the sack when you're too old to work. The clearest love to scheme and match their wits against others'. They've all sold books one time or other. They've all done about two weeks at productive labor, and had sworn a vow never to do another lick of honest toil the longest day they live. They wear good clothes; they have informed palates as to delicate cookery and wines; in their waistcoat pocket they carry a lump of twenty-dollar bills as big as a prayerbook, bills folded lengthwise and then across. And they have more money salted away. Selling books is all right as far as it goes, fifty or sixty per cent. commission is all right. But it's so slow! They want quicker action. It's just as easy to get it in bookshelves as it is in ponds. Easier. They land in Big Business. Legitimate? Well, it's as legitimate as any, they say. And if you maintain that there are some businesses that are legitimate—on the dead now—they look at you out of the corner of their eyes, and tell you to come out of it; you're in a trance.

Well, you have your job in the coffin factory, and you're all right. It's a good, steady job—till you get fired. You'll play

passy-wants-a-corner with many another job before you land in one that is really congenial to you—if you ever do get one like that. Dodging from one to the other, there will be moments when you have an almost pleasant titillation, an imitation of the fear that you might have to wrap newspapers round you in the parklet, and learn to sing hymns and hold up your right hand, when the weather gets severe.

How long the time seems, to look back over it, that you worked in the coffin factory! How short it really was. The friends you made in that cheap mechanics' boarding-house, who didn't know B from bull's foot about the particle "an" and the optative mood, how much you learned from them! There's nothing to be looked for from the boss; all he cares for you is what he can get out of you, and, conversely, all you care for him and his work is what you can get out of 'em. But there are times when there's got to be help, and it comes from those who can worst afford it:

Not as a ladder from earth to heaven,
not as an altar to any creed,
But simple service, simply given, to his
own kind in their common need.

A dollar bill was as much to those poor boys as a thousand dollars is to the crowd you train with now. But they came across with it. And they didn't say: "It might be me like that some day." No; they just came across with it, that's all. What else could a bloke do. Others had come across for them when they were up against it good and hard, and they have to pass it on. And where are they now? They were only mechanics, and so they're dead before their time, or bughouse from overwork and underfeeding, or they're in the almshouse.

What a cruel, barbarous, thoughtless, wasteful, unorganized, niggle-diggly way to do! Truly did Procy call it "the arena of life," where boys, our boys, whom mothers bore in deathly agony, whom fathers bade farewell to with a sharp pinch of the hand and "Don't get discouraged," and "God bless you!" spoken with trembling lips, our sons, for whom we rise up early and so late take rest, for whom we plan so much and hope so much, are thrown to the lions, with only their bare and untaught hands to fend for them!

The New Style of Sleeping Cars

THE writer of that entertaining department in *Scribner's Magazine* called "The Point of View," has something to say about the new style of sleeping cars in his June causerie.

Have you ridden in one of the new "steel sleepers?" "You will, Oscar." And when you do you will make your own reflections. Mine concerned themselves largely with yours, so to speak. What is the average American going to make of this upsetting of his habits of mind, this dislocation of his preconceived standards? It was remarked of the American sleeper after a specially gruesome "holocaust" that, as Dr. Johnson maintained that being in a ship was being in a jail with the chance of being drowned, so being in this was being in a jail with the chance of being burned to death. Now that is the precise peril which is evidently and ostentatiously averted from you in the new sleeper. Whatever happens to you in the night, it will not be combustion. This is assured by the sheets of smooth steel which surround you, garnished with nothing but a pustulation of rivets, and you feel through the floor covering, presumably of asbestos, other sheets of the same. But what strikes you next to this grateful sense of incombustibility is the violent break with all the traditions of the Pullman. The builders have not troubled themselves in the least to exorcise a system of appropriate, or inappropriate, decoration for the new construction. If to paint sheet-steel a dull maroon and to mark the borders of its panels with a thin black line be decoration, this is "decorative." If not, not; for there is nothing else to be seen, nothing but a sea-green silk curtain draping the portal of the dressing-room at each end, within your respective one of which, to be sure, your lazier nature may still receive such solace as tobacco, and your aesthetic as the sheen of exposed and nickel-plated plumbing can supply. The plumber, it appears, unlike the steel-worker, refuses to be reduced to his simplest expression. But the plumber alone exceeds the irreducible minimum. Elsewhere the essential, the quintessential, is all. The passenger never before had it so borne in upon him that to the railroad

a passenger is but a package, a cased and soldered package. "No wayfarer innocent of French, for the first time understands why, in that ridiculous language, a "sleeping" is also a "wagon-bed."

After the shock has subsided of finding yourself in a cell instead of a boudoir, you discover that you like it. Why should he who does not live in a palace travel in a palace, or, for that matter, he who does? If the new sleeper is as aseptic as a monastery or a jail, as grim as a battleship, it is also as clean as the warship or the jail. (The cleanliness of monasteries is said to vary.) The essential is at least all there. And you observe that the bare supply of the manifestly necessary cannot be vulgar or ridiculous, whereas the gorgeousness of the ancient sleeper was exposed to those objectives. The gibe of one fashionable architect about the decoration of another, that he was not quite sure whether it was Early Pullman or Late North German Lloyd, falls harmless from the armor-plating of the latest Pullman. But what is to become of those aesthetic standards which were established by the evolution of luxury from the days of the Early Pullman, in the simple souls which took it for the last word in Carhold Art, when the Pullman in whom they put their aesthetic trust, the perfidious Pullman himself, or itself, prescribes this Spartan vehicle, and "scraps" what they adored?

Who is to pick from the scrap-heap those acres of mirror, those miles of Circassian or San Domingo veneers, those continents of gilding, in which repentant railroads must now suspect that they have been wasting the money of their stockholders, and the relics of which not all the bar-rooms and gambling-halls of the continent can absorb? Meanwhile the wayfarer may recall the joy with which Walter Bagshot, in Paris, encountered the stupider of the London newspapers: "Here, at least, there was nothing to admire." And he may also be comforted that the manes of that bilious aesthete, John Ruskin, are appeased by the "wagon-lit nouveau".

"There never was more flagrant and impertinent folly than the smallest portion of ornament in anything concerned with railroads."

Deathproof Versus Fireproof

WITH the text "We know how to protect buildings; we must learn how to protect people," Rheta Childe Dorr, arraigns the terrible loss of life, by fire, in buildings supposedly fireproof, in an article in *Havpington's Magazine*.

The time has come when we must make a business of fire prevention, and, in case of unpreventable fires, of minimizing the human loss.

After all, it is a simple proposition that we have before us. First we shall have to arrange things so that there will be very few fires. Then we must arrange things so that the people in a burning building can get out. And then we must teach the people, through fire drills, that they can get out.

Within the last two years we have heard a great deal about industrial efficiency. To most people industrial efficiency has meant only a plan for getting more and better work out of labor, but that is only part of its meaning. It aims to make industry efficient by protecting and conserving the laborer. Already it has gone far towards protecting him from death and injury by fire.

The men who have gone professionally into this work, the efficiency engineers, have not labored under the popular delusion that fireproof buildings solve the fire problem. The Triangle shirtwaist factory occupied a fireproof building, and the expenditure of a few thousand dollars will restore every hit of damage it suffered.

The \$200,000 stock of merchandise was not fireproof and it burned. The men and women caught behind the locked doors were not fireproof and they died.

We might build an entire city of fireproof buildings and fireproof dwellings, and have almost as many fires and quite as many deaths by fire as we have now. The efficiency engineers are beginning to impress the public with the necessity for deathproof buildings.

A Joint Board of Sanitary Control consisting of representatives of employers and workers in the garment trades recently made an investigation of 1,463 garment factories in New York City. The conditions they discovered were amazing. Here is a summary of their report:

Of 1,463 factories, 1,173 had hall doors opening inward instead of outward. Thus, at the outset, 97.5 per cent. of garment factories in New York are violating one important law guarding against loss of life in case of fire.

Of 491 factories, 40 per cent. had no fire exits except one fire escape.

One hundred and one had no fire escape drop ladders, or they were out of reach.

Sixty-five had straight ladders, very difficult to use.

Eighty had halls less than three feet wide.

Twenty-eight had all doors leading to halls and stairways locked during the day.

Fourteen had no fire escapes.

Seventy-three factories so flagrantly violated the fire laws that the committee thought it wise to notify not only the proprietors, but the mayor, the superintendent of buildings, and the fire and police commissioners.

Clearly, if we are to cease killing and maiming the workers, we have got to make over the factory. We cannot tear down and rebuild all in a minute, but one thing we can do. We can build a fire wall in the middle of every large building used for manufacturing. This wall must be furnished with a sufficient number of fireproof doors which shall slide into the walls at a touch and shall automatically close with another touch. And we can make laws that no man shall establish a factory in any other kind of a building. The making of these laws calls for a superior intelligence and a knowledge of conditions above the ordinary.

Rhinelandr Waldo, Fire Commissioner of New York, has undertaken the work for that city. Waldo is not the ordinary type of political appointee. He is a man of wealth, education and social prominence. Yet he has chosen to devote his life to the study of fire prevention.

Out of his knowledge he has devised a plan for a Bureau of Fire Prevention which has been embodied in the proposed new charter for the City of New York. One division of the Bureau will have entire jurisdiction over fire escapes and fire apparatus. Another division will be responsible for the regulation, sale, manufacture, use, transportation and storage of

combustibles. A third division will be of inspection; a fourth of violations of the fire law, and a fifth, in case of fire, will investigate and fix the responsibility.

According to Commissioner Waldo, fire prevention is a mere matter of intelligent engineering. The first really important step towards fire elimination, he believes, is to clean up. The practice of allowing factory floors to be strewn, days and weeks on end, with cloth and paper scraps; of permitting oil-soaked rags to lie beside machines; of tolerating a litter of rags and dirt and cigar stubs in halls and stairways—these practices are all productive of an enormous number of factory fires.

There must be expert inspection of the insulation of lighting and heating apparatus.

Public buildings, churches, theatres, hotels, restaurants, especially restaurants in which smoking is permitted, need especial guarantees against fire. Every curtain, every drapery, every bit of upholstery can be treated with inexpensive chemical solutions, which render inflammable materials absolutely fireproof, without injury, or in any way altering their appearance.

The next step in fire prevention is the matter of prompt notification to the department when a blaze first starts. Automatic fire alarms, cheap and easily obtained, ought to be an essential part of house furnishing, and of factory, shop and office equipment. Their mechanism is so sensitive to heat that the instant a rise in temperature sets it in motion an electric alarm flashes into the nearest fire station.

The automatic alarm works twenty-four hours a day, takes no holidays or vacations, and never makes a mistake, but it should not eliminate the watchman. In large establishments he is required to operate the indoor fire extinguishing apparatus which the law of every community should force property owners to install. Thousands of fires might be extinguished before the arrival of the fire engines.

The kind of extinguishers employed needs regulation by law. Buckets of water or of sand, standpipes and hose or chemical extinguishers are good enough where the possible fire area is small and the danger of human loss limited. Department stores, hotels, lofty and crowded buildings of any sort need automatic sprinklers.

These admirable servants act on the same principle as the automatic alarms. The minute the temperature of a room becomes abnormally high, and a tiny blaze raises the temperature amazingly, the sprinkler sends a fine, strong, irresistible spray of water over every inch of the area it protects. It soaks the fire out in a minute.

After every precaution has been taken, there will occur unpreventable fires. With this fact in view it is clear that arrangements for getting people out of danger must be made. The statement is almost platitudinous. Of course we ought to provide against burning people up. But we do not. We do not even insist upon proper fire escapes.

An ideal fire escape is an outside balcony of metal or stone, along which people can easily pass beyond the next fire wall. If stairs are used as a fire escape, they should be on the outside of the building and should never lead into a court. In Philadelphia, for one city, they have towers on their best buildings separated from the main structure, and reached from every floor by an outside balcony. These towers are the best fire escapes so far devised.

With all these proposed regulations, even with proper fire escapes, there will still remain danger to human life, because the majority of people will still have to be depended to use them. And here, too, men are coming forward to meet the situation.

As for fire drills, not only in factories, but hotels, hospitals, museums, libraries, steamers stand in need of them. The employees of all these places should be assigned, as a part of their regular duties, to emergency posts in case of fire. Few libraries are fireproof. The enormously costly structure recently completed in New York after years of labor is a beautiful and massive creation of steel and granite on the outside, but it has wooden ceilings and wooden panelings on the inside. A small fire might in a few minutes spread in that library so quickly that priceless and不可 replaceable books and manuscripts would be destroyed, unless the library staff were drilled to handle the situation. The loss of life involved in the burning of a fraternity house at Cornell University several years ago demonstrated the need of protecting such places.



HOUSE OF G. P. SCHOLFIELD, 890 THORNWOOD AVE., TORONTO.
Built of (cheaper) grey brick and rough grey stone, with stone-mullioned windows and wrought-iron casework.

An Attractive Home in a City's Suburbs

By

Eden Smith

SITUATED on the west side of that branch of the Rosedale Ravine in Toronto, which runs nearly north and south and a little above the corner where the ravine bends to the south-east, the handsome residence illustrated above was designed to make the best possible use of the advantages of its site. Besides providing a wide open space, the ravine at this point has the added attraction of a very fine view to the south-east.

To make the best use of these good features of the site and to obtain as much sunlight as possible for the living rooms of the house, were the factors controlling the arrangement of its plan. The dining room, sun room, principal bed and dressing rooms are placed on the east side and south-east corner and the house kept well along the north side of the lot so as to get a good open space on the south as well as on the east. Keeping the south side open



INTERIOR VIEW OF THE LIVING ROOM OF G. F. SCHOLFELD'S HOUSE.
Showing a glimpse of the hall and staircase beyond.

like this makes it possible to place the entrance in it, where it should be, well sheltered from cold, wind and rain, for it is good to let the first impression of a house be the hospitable offering of warm shelter and comfort,—that is what porches are for.

The rooms are not lofty as a high room is more difficult to ventilate than a low one. Hanging the warm and impure air up to the ceiling does not really dispose of it or supply fresh for the inmates to breathe. All the living rooms and the principal bedrooms are provided with fireplaces, the most effective ventilators we have.

The height of the rooms decided to a great extent the shape of the windows. They could not be made high to let a sliding sash lift enough to give a comfortable outlook and, of course, as a sliding sash window has to be narrow in proportion to its height, such narrow windows

spoil one's view. Ornement windows with their almost unlimited width give a pleasant extended view of the landscape.

It would be quite possible to make windows as wide as the end of the room and fill the whole opening with plate glass just like an ordinary shop front, but such windows would appear to be enormous holes in the wall and quite destroy that appearance of strength and endurance which is required to convey the idea of comfort and security.

The stone mullions carry the suggestion of wall over the window opening and prevent the appearance of weakness.

The color of the house outside is grey, grey stone, grey green slate and rough clinker bricks varying in color through yellow and green to purple. The broken color and rough brick give a softness of texture to the walls necessary to combine it with the landscape.



DINING ROOM OF THE G. F. SCHOLFELD HOUSE.
Paneled with oak, with leather frieze, and beamed ceiling, as in the hall and living room.

Nature never made anything like a red pressed brick, and she cannot absorb the ghastly artificial looking surface it makes, and when this surface is only relieved by the hard mechanical-looking holes which large-paned windows make, it sticks out of a natural landscape like a frock coat and silk hat in a garden.

The inside views are of the dining-room and library, paneled in dark oak about to the tops of the doors as in the entrance hall, a glimpse of which is obtained through the library doors. The reason for paneling the rooms thus, was to obtain a pleasant colored wall surface that could give character to the rooms, and to avoid the lightness of patterned decoration as well as to get a wall that would not need renewing every few years either because its patterns ceased to interest and therefore commenced to annoy one, or because they were worn out.

The ceilings were paneled with oak beams for the same reason, and to obtain the soft restfulness of a dark surface.

Both the library and dining room communicate with the sun room which has a commanding view on the south-east corner. The drawing room is in the front near the front door.

The sun room opening out of the dining room has a red tile floor which may be washed out and the room makes a convenient breakfast room.

SMOKING ROOM STORIES

Describing his platform experiences, Dr. Macnamara says the heaviest "fall" he ever had was at an agricultural laborers' meeting in Devonshire. While he was speaking, a man insisted on asking a question. Dr. Macnamara told him to sit down and ask the question at the close of the meeting. The man persisted, and so did Dr. Macnamara, until another man called out to the interrupter, "Sit down, you ass." Still another man arose, and, in very emphatic tones, repeated the advice. "I very unwisely intervened," said Dr. Macnamara, "and said: 'There seem to be a great many asses here; let us hear one at a time.' Then the man who first interrupted, pointing his finger at me, said, 'You begin, then.'"

* * *

A Scottish person, remarkable for the simple force of his pulpit style, was enlarging one Sunday upon the text, "Except ye repent, ye shall all likewise perish." "Yes, my friends," urged he with solemn earnestness, "unless ye repent ye shall as surely perish," deftly placing his left forefinger on the wing of a bluebottle fly that had just alighted upon the reading desk while the parson's right hand was uplifted, "just as surely as, my friends, I flatten this poor fly." But before the threatened blow descended the fly got away, whereupon the minister further "improved the occasion" with ready wit, exclaiming, "There's a chance for ye yet, my friends."

* * *

A big negro came before a Virginia judge the other day, seeking redress for domestic troubles.

"It's a wronged woman," she declared in a grave-much-a-child-yo-villain tone, "an' I wants redress fro' dis yere co't."

"Tell me about your trouble," said the kind-hearted judge.

"It's about mah ole man. He's done been casyin' on plumb scandalous wif a lot of dese yeh young niggah gals, an' it's got so be'd twill I don't see him no moah'n once a week. Sompin's gottah be did!"

"H'm! I see," said the judge. "You are seeking a divorce—a legal separation—is that it?"

"Go 'long, man! Divo'ee nothin'! Think I's gwine t' giv him what he wants, an' 'low dat man who, 'spies all his cussedness, is de han'somest niggah in Coon Tree Holler, t' go skyhootin' 'round' 'mong dem little yaller gals? N', sah! I doan' want no divo'ee, n'r dat legal separation you-all's talkin' about. N', sah, judge, what I wants is an injunction."—Lippincott's.

* * *

Among the engravings that adorned the walls of a Toledo woman's home was one big one of the leaning tower of Pisa.

One morning, shortly after the advent of a new maid, the mistress of the house noticed that the picture of the tower hung crooked. She straightened it, and said nothing of the matter to the new servant, who had evidently shifted it while dusting.

The next day the picture was again crooked; the same thing happened the next day, and the next. Finally, one morning, chancing to be in the room where the picture was, the mistress said to the maid, as she dusted:

"Mary, you've hung that picture of the tower crooked. Just look at it!"

"That's what I say, mum," returned the domestic; "look at it! The only way I can git that blamed tower to hang straight is to hang the picture crooked."—Everybody's.

The Defeat of German Competition

By

Charles Draper

NOT long ago a man who owned a factory in Montreal, decided to put ten more windows in one side of it and to improve the ventilation. In other words, he decided to let in more light and

him fall, for they knew better than to waste floor-space and put in fancy ventilators. They looked to see the man's bank drop on him with a cold thud and order him to cut out his extravagance.



Head Office and Factory of the Monarch Knitting Company at Danville, Ontario

air and to give each machine—and therefore each operator—more room. His relatives nagged him for being an extravagant fool-hardy idealist. His competitors laughed at him and waited to see

But the bank didn't. The man had gone down to see his bank when first the idea of these improvements came to him and had secured the bank's approval.

"It is this way," he told the manager.

"My employees will work better. I won't be losing so many through sickness and, therefore, won't need to waste time getting new ones, breaking them in, and waiting for them to develop the same efficiency as the old ones. Under these conditions I can have healthier employees, keep them longer, get better work from them, and get better goods. I'm going to spend \$10,000 in more floor space and more light and air."

The bank manager wrote head office and head office approved. The improvements were made. The employees no longer were laid off through illnesses brought on by work under unfavorable circumstances. The product was better. The sales were better. The prices better. The profit better.

And there was another result, a result that did no direct good to the idealist manufacturer nor his employees—there could be no spreading of sickness by the sale of his particular brand of goods. In the unregenerate days of his factory, there had been unhealthy operatives working in his mill, breathing into the

very texture of the goods they made. With sunlight and air, things changed. His goods, produced under sanitary conditions were sanitary.

This, in story form, is the story of the beginning of the Sanitary Factory Movement. It is not a crank movement. Not a fad. Not a humanitarian provision in the interests of employees only, nor of the consumers of the goods only, but a "business proposition," affecting the profits in dollars and cents, of every factory.

One of the industries in which sanitary conditions of production play an important role, is woven textiles, or knitted goods. For the garments which come in most intimate contact with the bodies of the wearers are turned out by these factories. Produced under sweat-shop conditions these garments—such as underwear, knitted gloves, capes, sweaters, sweater-coats, etc.—were more than likely to harbor germs which, given an opening could play havoc with the health of the wearer. In the old days many a case of illness which the doctors could not account for, might have been traced to an



Mr. J. A. Burns, General Manager of the Monarch Knitting Company



36 Thomas Factory of the Monarch Knitting Company

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innocent looking garment over which some half-starved, half-alive, sweat-shop worker had toiled.

Some time ago Germany supplied Canada with knitted goods. Germans dominated the market, because they were past masters of the art of cheap shoddy-making. To-day, despite the removal of the German sur-tax, German goods are crowded out, Canada is supplying her own goods—almost entirely manufactured, it may be stated, by one firm—and produced under sanitary conditions.

A few years ago this firm, in a small mill, started in the town of Dunnville, Ontario, in the manufacture of knitted goods. It was called the Monarch Knitting Company. It had an uphill fight. It could not meet German competition. One day, it saw itself face to face with its bank—and failure.

The population of the town of Dunnville, about this time, was not astonish-

ing. In fact it was very low. The three men who controlled the small mill got together and talked things over. One was F. R. Lalor (now M.P.), another G. H. Orme, and the third, J. A. Burns. As a result of the 'talk' they decided that they faced two alternatives: to go to the wall, or to go ahead on four times the old scale of business, with four times as big a factory, four times the raw material to buy, four times the number of machines and employees—and four times the sales. They chose the second course. They took the step. Not only did they build a newer, bigger factory, but they made provision that it should be the most healthy, sanitary factory in the country.

They did it. To-day they have four factories in four different towns. The output of the present concern in one week equals the yearly output of their original little old factory. And the dominating idea was — Good conditions of work make

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good work: good work, good garments, and—good sales! That is why the Monarch Knitting Company, of Dunnville, St. Catharines, St. Thomas and Buffalo, has done more perhaps than anything else to drive out German imported knit goods.

It is all very well for any firm to claim this and that and something else for its products, but there is something to be explained when it can be said for one factory that it has overcome German competition in Canada—which by the way is about as formidable competition as any firm could resist—practically driven German goods into a low position in the country, and made the art of knitting a new domestic accomplishment in Canada. Yet the Monarch Knitting Company has done this. And it raises wonder in the mind of the disinterested observer.

The writer visited the Monarch Knitting Company's mills at Dunnville, and was permitted to go through them. Walking up the long road beside the Grand River one comes to four huge brick buildings, standing side by side, facing the broad river, and connected with each other by enclosed passage ways. These were the mills. Plenty of space around them, windows everywhere, sunlight everywhere, and a fresh cool breeze blowing off the clean Grand River.

In the building farthest up the river one found the offices, quietly run, yet humming with business—recording gramophones instead of ordinary dictation, rows and rows of desks for ledgers or typewriting machines.

The general manager of the company, Mr. J. A. Burns, was sampling wool. One of his men had reported a flaw in a certain



Writing Department—The Monarch Knitting Company

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Mr. F. H. Lator, M.P., President of the Monarch Knitting Company

supply of raw material, and the chief executive was examining it carefully, looking into the fibre, stretching it, pressing the skin between his hands.

"No," he said, finally, "that is weak stock. Don't use it."

Then came the visit to the actual operating rooms of the mill. We went through "backwards," starting in the long airy room where the stock is stored—everything from sweater-cuts to "Aviating Caps." One's first impression was the quietness of the place. One might have imagined that business was "dull," except that when one had walked the length of the huge room one saw that there were, after all, a great many employees in it; that each was busy; and, in short, that it was the spaciousness of the room which made it seem so pleasant.

It was at the other side of the buildings, however, that one saw the beginning of these things—the beginning of the knit

goods we saw lying in the stock-rooms of the first room we had seen. Entering the dye-house one was nearer the actual commencement of the processes. At first there seemed to be nothing within the four walls of this particular building except fog—a heavy, warm fog. But when one's eyes became accustomed, the vats loomed up in their places, and one could see the dye-men—and the dyer in this kind of work is a combined artist and scientist—moving about. Somewhere nearby, something was purring quietly—a motor; and the sound of wind, forced through a huge driving machine added to the flavor of secrecy about the place.

After the dye-house where the wool is dyed and dried, we stepped over into a long room occupied by a number of slow-moving machines, each the length of the room. At one end of each machine was a box-receptacle filled with an inch-thick mass of wool. For a time there was no

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movement in the box, then, suddenly, something in the machine opened and seized a quantity of wool. The wool disappeared upwards and over the top of the machine. Following it, past the numerous covered rollers and brushes, one saw the wool appear again in a sort of rope perhaps three inches thick. The rope passed between rollers, some operating lengthwise and some cross-wise, so as to reduce the "rope" to a smaller size. And so, on and on, rolled and brushed, this heavy mass of wool passed from cylinder to cylinder, over combs and brushes, until finally we reached the far end of the machine and discovered the rope—by this time stretched almost to the proper size of yarn in a rough state—passing between velvet rollers out into bobbins which absorbed it inch by inch as the machine, like some slow-eating animal, digested the wool.

In a room somewhere overhead we found whole batteries of these bobbins feeding the spinning machines. The immense frames which stretch and refine the yarn, moved back and forth. Each appeared to be perhaps eighty feet in length, and each was carrying hundreds of threads, each to be wound on its own spool.

But after the spinning, the Knitting! Who has not seen a grandmother knit, or heard of Queen Victoria knitting to keep her wrists white? But knitting in the Monarch Knitting Company's factory is a different proposition. The grandmother knits slowly, a row at a time, philosophizing the while. But on the circular knitting machines the speed of a thousand grandmothers all working—if such were possible—on one thread, is made. Scores of needles, set cunningly in a revolving disc, catch at the threads as



Spinning Room—The Monarch Knitting Company

Ray ran was the old in Maclean's Magazine.



Mr. G. H. Orms, Vice-President of the Monarch Knitting Company

they descend from the revolving bobbins on top of the machine. One needle takes the thread one way; another in another way. The motion is so swift that all one can see is the glistening steel—and coming calmly and quietly out, into a receptacle underneath, is the never-ending mesh. One machine turns out material to be cut into sweater lengths. Another makes sleeve material, and another a sweater trimming of various sorts.

Of course, there is no shape to the product of these machines, except that some of it is like an unending cylinder. But after a time the mesh is transported to cutting tables where the cylinders are cut off into sweater lengths, or where the cloth is cut for sweater coats, etc. After that the neck and arms are put on and buttons, buttonholes and trimmings completed.

The finishing room is one of the "sights" of the factory. In the Monarch

Knitting Company's mill sunlight pours in on all sides upon the long rows of sewing machines, each with its own operator. The "power" sewing-machines have a song of their own—not the commonplace, comfortable chuckle of the domestic sewing machines, at all. They are operated from a shafting concealed under the table. A touch of the operator's foot puts one in motion. It starts with a jump and jar. It works so quickly that it stops before the ordinary machine would have been well commenced. The button-hole machine works in sorts, so to speak. The needles flash for three seconds, and voila! — the stitching is done, and a knife, falling automatically, cuts the hole. The button-sewing machine in turn does its share. And so the sweater-coat, or whatever it is, is finished.

In one order, Mr. J. A. Burns, bought 5,000 miles of thread for those mills. In

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a year 1½ million pounds of wool are converted into clothing. The facts of an industry such as this are startling. How many people a few years ago wore sweater-coats? To-day a Canadian's wardrobe is not complete without one.

Each room in that mill—and remember there are four mills being operated by this remarkable company—had its own special interest. The wonderful intricacies of the most modern knitting machines, and the other apparatus of this enormous factory, compel one to stop and wonder which is greater; the man who invented one of those machines or the man who discovered a star? But the feature which marked every room in that factory was—Happiness. It is not exaggeration

at all. It is nothing more than justice to the men who created that structure. Sunlight and fresh air, cleanliness and comfortable quarters marked every room.



St. Catharines Factory of Monarch Knitting Company

In one room we heard someone singing. It was an old-fashioned revival hymn, and we found it came from the lips of a wo-



Knitting Department—The Monarch Knitting Company

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Section of Finishing Room—The Monarch Knitting Company

man who was unmauling one hundred and fourteen threads which she was winding on one hundred and fourteen bobbins—all at once. In another corner two old women, useless in the outer world, were unwinding odd pieces of knit goods and rewinding the yarn, the while they exchanged gossip of the old days.

This is a sanitary factory, and "Sanitary," in the case of the Monarch Knitting Company, means more than cleanliness, more than hygiene. It means better goods at better prices to the consumer. Feel the springiness, the snap, the elasticity, the "cling" of a Monarch Knitting Company's product. You may say "Yes, that is because it is pure wool, and because

they know how to operate the machines." True enough, but there is more than "wool" and "kill" in it. There is actual



Monarch Knitting Company's Factory at Buffalo, N.Y.

"sunlight" in them. That is why eighteen travelers, from one end of this country

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Circular Knitting Department—The Monarch Knitting Company

to the other, are selling "Monarch" Knit Goods.

It is good, once in a while, to see good goods appreciated. Quality counts. It pays every manufacturer to see that the

maximum of good material and workmanship is put into his product. No greater illustration of this could be cited than the marvelous growth of the Monarch Knitting Company.



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Then without much hesitation
I arose in aggravation
And I beat a lively tattoo
with my stick upon the floor
I'd hardly started pounding ere,
resonant, resounding,
From the window, most astounding!
came the self same voice once more
"MOGUL! MOGUL! smoke some more."